

# The Mining Journal

## RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[The Mining Journal is Registered at the General Post Office as a Newspaper, and for Transmission Abroad.]

36.—VOL. XLIII.

LONDON, SATURDAY, APRIL 26, 1873.

[WITH SUPPLEMENT.] {PRICE FIVEPENCE. PER ANNUM, BY POST, £1 4s.

**ES CROFTS, STOCK AND SHARE BROKER,**  
No. 1, FINCH LANE, CORNHILL  
(ESTABLISHED 1842).  
Shares difficult of sale may find means of disposal for  
CROFTS agency.  
British and Foreign Mining Stocks and Shares, and in Railways,  
Bonds, Insurance, Gas, and other Shares.  
In SOUTH ROMAN GRAVELS, OLD BATHOLDS, TANKERVILLE,  
ROMAN GRAVELS, PERKINS BEACH, PENNERLEY.  
Description of shares bought and sold at net prices.

**H. BUMPUS, STOCK AND SHARE DEALER,**  
THREEDLE STREET, LONDON, E.C., has FOR SALE the  
Shares of commission—  
1. 12s 6d 25 Flagstaff, £12 6s. 3d.  
2. 12s 6d 40 Furze Hill, fully pd.,  
15s. 6d.  
3. 12s 6d 70 Frontino.  
4. 12s 6d 10 Great Vor, £6 1/2.  
5. 12s 6d 20 Gawton, £2 8s. 9d.  
6. 12s 6d 15 Hington Down, £7 1/2.  
7. 12s 6d 30 Last Chance, £6 1/2.  
8. 12s 6d 25 Marke Valley, £5 1/2.  
9. 12s 6d 50 Malpas, 25s. 6d.  
10. 12s 6d 20 New Rosario, 20s.  
11. 12s 6d 50 New Quebrada, £4 18 9  
12. 12s 6d 30 New Dolcoath, £3 1s 3  
13. 12s 6d 5 North Roskare, £21.  
14. 12s 6d 25 Old Treburt, 15s. 3d.  
15. 12s 6d 50 Plynlimmon, 13s. 6d.  
16. 12s 6d 60 Pennerley, 45s. 6d.  
17. 12s 6d 60 Penstruthal, 28s.  
18. 12s 6d 50 Parys Mount, 11s.  
19. 12s 6d 70 Prince of Wales, 12s 6d  
20. 12s 6d 50 Perkins Beach, 3s. 9d.  
Description of shares at the best market  
price of commission.  
Bankers: National Provincial Bank of England, E.C.

**OUNGHUSBAND CHRISTIAN,**  
STOCK AND SHARE DEALER,  
11, ROYAL EXCHANGE, E.C.

**BARTLETT, STOCK AND SHARE DEALER,**  
GREAT ST. HELEN'S, LONDON, E.C., transacts business at  
description of security.  
Shares in Miners and Prince Patrick shares.  
Direct to the attention of his friends to the report received  
inserted in the Journal. For permanent investment or rise in  
shares should be secured.

Price 1s., post free 13 stamps, Special Edition.  
**INVEST—THE CAPITALISTS' GUIDE.** A concise  
Home Government Securities, Foreign Bonds, Colonial Securities,  
Telegraphs, Banks, Iron and Coal Companies, and Mining  
Interest they yield upon present prices.  
Edited by E. J. BARTLETT, 30, Great St. Helen's, London.

**ENDEAN AND CO., STOCK AND SHARE**  
DEALERS, 32, GRACECHURCH STREET, LONDON, E.C.  
Investors will find through us the best and safest medium for  
and advice, touching all kinds of Stocks and Shares, British  
and with the purchase or sale of them. All marketable securities  
for cash or account. We advise the immediate purchase  
of, Bryn, Boscawell Downs, Aberdunant, and the Wood Close  
should fall to have a great rise in value.

**RS. HOOKE AND CO.,**  
STOCK AND SHARE DEALERS,  
AND FINANCIAL AGENTS,  
10, COURT, OLD BROAD STREET, E.C.;  
and 25, WATERLOO STREET, BIRMINGHAM.

**J. W. COLLINS,**  
MINING AGENT, STOCK AND SHARE BROKER,  
GREAT ST. HELEN'S, LONDON, E.C.  
After years' engagement at extensive Cornish Mines.

**J. TAYLOR AND CO., 3, UNION COURT, OLD**  
BROAD STREET, E.C.; and MINING EXCHANGE, ST. JAMES'S  
SOUTH KING STREET, MANCHESTER, have FOR SALE—  
1000 lb. 100 Hobs & Hill, 15s.; 20 Allt-y-Crib; 15 South Condurrow;  
well, offer wanted.

**A. ENDEAN, FISHER AND CO., STOCK AND SHARE**  
DEALERS, 32, NEW BROAD STREET, E.C.  
transacted in all marketable Securities for cash or account.  
and Co. advise the purchase of shares in Bampfyde, Boscawell  
and Woodclose and Polgoth.  
Bankers: London and Westminster, Lothbury.

**S. WM. MARLBOROUGH AND CO.,**  
THREEDLE STREET WITHIN, LONDON, E.C. (Established  
FOR SALE the following SHARES at prices annexed:—  
1. 10 Roman Grav., £20 16 3  
2. 100 Ruby, offer wanted.  
3. 10 Bedford Cons., 13s. 6d  
4. 50 Great Tin Works.  
5. 20 Gawton, £2 6s. 3d.  
6. 15 Gold Run, 10s. 3d.  
7. 10 Great Vor, £6 1/2.  
8. 30 Great West Van.  
9. 5 Great Laxey, £16 1/2.  
10. 50 Gonninns, 30s.  
11. 10 Hington, £7 3s. 9d.  
12. 30 Llanarmon.  
13. 10 Lovell.  
14. 20 Last Chance, £6 1/2.  
15. 20 Mark Valley, £13 19  
16. 50 Malpas, 27s. 6d.  
17. 25 Manghold Head, 22.  
18. 100 New Birch Tor, 2s.  
19. 75 New Dolcoath, £3.  
20. 25 New Rosewarne, £4.  
21. 30 North Treleigh Wood.  
22. 20 New Quebrada, £4 1/2.  
23. 60 Old Bathol, 11s. 3d.  
24. 60 Old Bathol, 11s. 3d.  
25. 50 Prince of Wales, 12s. 6d.  
26. 30 Penstruthal, 28s. 9d.  
27. 10 Penhalls, £23 1/2.  
28. 60 Parys Mountain, 10s. 3  
29. 30 Pennerley, £2 6s. 3d.  
30. 5 Providence, £12 1/2.  
31. 60 Plynlimmon, 16s. 9d.  
32. 50 New Rosario, 21s.  
33. 50 Yudanmutana, 6s. 3d  
RECOMMENDED—EAST WHEAL LOVELL shares at present  
price have improved to £280 per fathom.

**ORGE BUDGE, STOCK AND SHARE DEALER,**  
ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established  
23 years), is a SELLER at net prices of:—  
1. 100 West Gwennap; 10 West Polbrean; 175 Medlyn Moor;  
2. 100 Penstruthal; 25 Ladywell; 100 Bwadrain Consols; 125  
3. 100 West Van; 20 West Caradon; 50 Excelsior; 100 Nangiles; 70  
4. 100 Cathedral; 10 Hington Down; 20 West Esqair Lie; 50 West  
5. 100 Grenver and Wheel Aburham; 200 Clew Hill Colliery; 100 South  
6. 20 East Lovell; 70 Whal Argus; 100 Corn Elan; 125 Perkins  
7. 30 South Roman Gravels; 40 Prince of Wales; 55 West Gwennap  
8. 20 Laxey; 20 West Roman Gravels; 100 Whal Uny; 60 Bronfloyd; 9  
9. 25 Emma; 50 Westland Creek; 150 Exchequer; 20 Last Chance  
10. 100 Gwennap; 150 General Brazilian; 40 New Quebrada; 120 Frontino  
11. 100 Rosca Grande; 100 Cedar Creek; 70 Saturn; 180 Yudanmutana; 100  
12. 100 Rosca Grande; 120 Malabar; 80 Thornhill Reef; 50 Roca.

**WEEKLY MINING CIRCULAR, EVERY FRIDAY.—**  
LONDON DAILY RECORD, STOCK & SHARE LIST, Every Evening.  
Published by P. WATSON, Stock and Share Dealer, 79, Old Broad-street, E.C.  
Bankers: The Alliance Bank, and Union Bank of London.

**MR. T. E. W. THOMAS, STOCK AND SHARE BROKER,**  
3, GREAT WINCHESTER STREET BUILDINGS, E.C.  
Established 1857.

**MR. W. TREGELLAS, 122, BISHOPSGATE STREET**  
WITHIN, E.C.,  
Deals in all descriptions of Stocks and Shares at close market prices.

**IMPORTANT TO SHAREHOLDERS IN ALL PUBLIC COMPANIES.**  
**WHAT TO SELECT—WHAT TO AVOID.—**  
BY FREDK. WM. MANSELL,  
ENGLISH AND FOREIGN STOCK AND SHARE DEALER,  
PINNERS HALL, OLD BROAD STREET, LONDON, E.C.

The APRIL number (now ready) contains a Comprehensive Review of the  
Position and Prospects of the General Investment and Mining Markets, &c.,  
which should be read by all shareholders and others interested in such matters.  
It also contains many valuable hints to speculators.  
\* Differing in every respect from all monthly Circulars, it embodies a large  
amount of valuable information, and well deserves being filed for future reference.  
—Vide London press.  
Gratis to clients. Subscription 1s. per copy, or 10s. 6d. per annum.  
Established 1857. Bankers: London Joint Stock Bank.

**MESSRS. GREGORY, WHITAKER, AND CO., STOCK AND**  
SHARE DEALERS, AND GENERAL FINANCIERS, 81, BISHOP-  
SGATE STREET, LONDON.  
Business transacted in all Marketable Securities at closest prices.  
Messrs. G. W., and Co. have SPECIAL BUSINESS in the following shares:—  
Bampfyde, Boscawell Downs, Bryn, and Woodclose and Polgoth.

**MR. C. POWELL, STOCK AND SHARE DEALER,**  
78, OLD BROAD STREET, LONDON, E.C.

**MESSRS. W. DUNN AND CO., STOCK AND SHARE**  
DEALERS, 3 AND 4, GREAT WINCHESTER STREET BUILDINGS,  
LONDON, E.C.

Orders received and commissions received.  
Bankers: National Provincial Bank of England.  
W. D. and Co. have FOR SALE the following at net prices:—  
1. 50 Aberdunant, 18s. 6d. 100 Great West Van, £2 10  
2. 50 Aberdovey, 7s. 6d. 20 Hington Down, £7 2 6  
3. 25 Allt-y-Crib, £1 11s. 6d. 50 Ladywell, £2 12s. 6d.  
4. 50 Bampfyde (Cop.), £4. 25 Last Chance, £6 1s. 6d.  
5. 25 Bog, £1 17s. 6d. 25 Malaga, £2 10s.  
6. 30 Boscawell, 21s. 1/2. 5 Margaret, £7 10s.  
7. 40 Bronfloyd, 15s. 20 New Dolcoath, £3 2s 6  
8. 50 Bryn, £1 17s. 6d. 20 North Croft, 5s.  
9. 20 Camp Floyd, £1 7s. 6d. 25 North Pool, £1 10s.  
10. 5 Cook's Kitchen, £21. 2 North Roskare, £21.  
11. 3 Dolcoath, £65. 100 Old Bathol, £1 2s.  
12. 20 East Grenville, £1 6s. 50 Parys Mountain, £s. 6d  
13. 5 East Lovell, £19. 25 Pennerley, £2 5s.  
14. 20 East Seton, 11s. 50 Penstruthal, £1 7s.  
15. 30 East Van, £4 1s. 25 Polbrean, £3.  
16. 10 Emma, £7. 50 Prince of Wales, 11s 6d  
17. 20 Flagstaff, £12. 25 Rosewall Hill, £1 5d  
18. 20 Fortescue, £1 1s. 2 St. Ives Consols, £15  
19. 40 Gawton, £2 6s. 3d. 10 So. Condurrow, £7 10s  
50 Wheel Whisper.

**MESSRS. BLYTH AND HUTCHINSON,**  
STOCK AND SHARE BROKERS,  
3, GEORGE YARD, LOMBARD STREET, LONDON, E.C.  
Every information respecting both British and Foreign Mines will be furnished  
free by post or on application.  
Price-List daily.  
Bankers: Alliance Bank.

**MR. E. CHARTERS, 8, CRAIG'S COURT, CHARING CROSS,**  
LONDON, has the FOLLOWING SHARES, free of commission:—  
50 Almada, 17s. 6d. 25 East Van, £3 1/2.  
50 Castle-an-Dinas, 35s. 10 East Lovell, £17 1/2.  
10 Emma, 5s. 1/2. 10 Flagstaff, £12.  
2 Cook's Kitchen, £19. 5 Great Vor, £6 1/2.

**MR. KENNA & CO., STOCK AND SHARE BROKERS,**  
5, UNION COURT, OLD BROAD STREET, E.C.

**MR. JOHN RUSLEY, STOCK AND SHARE BROKER,**  
7, CORNHILL, LONDON.  
Shares in the following Mines, in all probability, will advance in value from  
100 to 300 per cent. this year, viz.:—Wheal Crebor, West Caradon, San Pedro, East  
Seton, Wheal Pevor, New Rosewarne, West Rosewarne, Rosewarne United,  
Wheal Robartes, Treleigh Wood, Treleigh Wood United, Prince of Wales, Parys  
Mountain, and Wheal Grenville.

**FERDINAND R. KIRK, STOCK AND SHARE DEALER,**  
4, BIRCHIN LANE, LOMBARD STREET.  
SPECIAL BUSINESS in Van Consols, Devon Consols, Wheal Crebor, South  
Roman Gravels, Pennerley, Boscawell Downs, Castle-an-Dinas, West Caradon,  
Wheal Tankerville, Great Laxey, Wheal Mary, and Tylwyd.  
Shares difficult to realise receive immediate attention, either for sale or exchange.

**NOTICE OF REMOVAL.**  
**MESSRS. JAMES MAY AND SON, STOCK AND SHARE**  
DEALERS, beg to notify to their friends that they have REMOVED  
from No. 9, Gracechurch street to the NEW CITY CHAMBERS, 121, BISHOP-  
SGATE STREET WITHIN, LONDON, where all communications should be ad-  
dressed.  
Correct information and advice given on application, and purchases and sales  
effected at close market prices.  
Shares in several progressive mines, such as Excelsior, Cathedral, Van Consols,  
Great West Van, Penstruthal, and others, should at once be secured.

**MR. JAMES STOCKER, STOCK AND SHARE DEALER,**  
2, CROWN COURT, THREEDLE STREET.  
Railway, Mining, and Miscellaneous Shares bought and sold at the best market  
prices. SPECIAL BUSINESS in the following:—  
1. 85 Aberdunant, 18s. 20 Gawton.  
2. 45 Almada, 20s. 6d. 75 Grogwinion, 47s. 6d.  
3. 60 Australian Unl., 12s 3d 70 Great West Van, £2 1/2.  
4. 80 Boscawell, 35s. 9d. 25 Hington, £7 1/2.  
5. 70 Bog, 38s. 9d. 40 Killfrith.  
6. 100 Bronfloyd, 15s. 45 Last Chance, £6 3s. 9d  
7. 5 Bellavista, £12 1/2. 115 Ladywell.  
8. 55 Castle an Dinas, 35s. 10 Lovell, £8.  
9. 5 Cook's Kitchen, £22. 25 Mam. Copperopol., £7 1/2  
10. 60 Colorado Terrible. 100 Malpas, 24s. 9d.  
11. 3 Carn Brea, £147. 20 Marke Valley, £3 1/2.  
12. 100 Cwm Elan, 5s. 9d. 70 Malabar.  
13. 100 Cedar Creek, £2 13s 6d 70 Navarre.  
14. 100 Camp Floyd, 24s. 6d. 75 New Dolcoath, £2 1/2.  
15. 100 Chontales, 16s. 25 New Lovell, 18s. 9d.  
16. 100 Deer Park, 30s. 40 New Quebrada, £4 1/2.  
17. 10 Dolcoath, £64 1/2. 30 New Rosewarne, £4 1/2.  
18. 5 Emma, £69 1/2. 45 New Cook's Kitchen.  
19. 50 Eberhardt, £6. 30 North Tankerville, 15s.  
20. 50 Excelsior, 9s. 6d. 70 Old Bathol, 23s. 9d.  
21. 70 Exchequer. 65 Penstruthal, 27s. 6d.  
22. 10 East Lovell, £13 1/2. 20 Penhalls, £23 1/2.  
23. 20 East Seton, 11s. 60 Perkins Beach, 8s.  
24. 25 East Van, £4. 20 Pennerley, £2 1/2.  
25. 100 Frontino, 9s. 6d. 60 Parys Mountain, 10s.  
26. 100 Fortescue. 6 Providence, £12 1/2.  
27. 35 Flagstaff, £12 1/2. 110 Prince of Wales, 11s 6d  
28. 100 Furze Hill, 15s. 100 Richford, £s.  
29. 100 Frank Mills, 9s. 65 Richmond, £23 1/2.  
30. 200 Gen. Brazilian, 2s. 9d. 60 Russia, Copper.  
31. 170 Gold Run, 10s. 100 Roca, 15s. 6d.  
32. 20 Great Vor, £6 1/2. 80 Rosewall Hill, 25s. 9d.  
33. 20 Great Laxey, £16 1/2. 15 Roman Gravels, £20 1/2  
34. 110 Great Tin Works. 25 Hookhope, £2 18s. 9d.  
35. 70 Roca United, 18s. 6d. 100 Yudanmutana, 2s. 6d.  
Bankers: London and Westminster.

**M. R. CHARLES THOMAS,**  
MINING AGENT,  
3, GREAT ST. HELEN'S, LONDON, E.C.

**MESSRS. A. W. THOMAS AND CO.,**  
10, COLEMAN STREET, E.C.,  
MINING AGENTS, AND STOCK AND SHARE DEALERS.

**GOULD SHARP AND CO., STOCK AND SHARE DEALERS,**  
32, POULTRY, LONDON, E.C.  
Bankers: London and Westminster, Lothbury, London, E.C.

**BUSINESS in the FOLLOWING SHARES, as BUYER or SELLER:—**  
5 Carn Brea. 30 Van. 200 Rose United.  
10 Dolcoath. 20 West Chiverton. 50 West Tankerville.  
20 Great Laxey. 40 Wh. Kitty (St. Agnes) 250 West Great Work.  
50 Penhalls. 100 So. Roman Gravels. 100 Wheal Crebor.  
50 Roman Gravels. 100 Bog. 100 Van Consols.  
30 Tankerville. 100 Ladywell. 100 Penhalls.  
20 Tincroft. 500 Perkins Beach.  
Prices forwarded upon application.

**GOULD SHARP AND CO. SPECIALLY RECOMMEND the PURCHASE of**  
SHARES in the FOLLOWING MINES at present low prices.  
**EAST VAN (LEAD) MINE (LIMITED).**  
Investors CANNOT go wrong in buying these shares. It is one of the greatest  
certainties of the day. The mine adjoins the celebrated Van, and embraces the  
same lodes. Shares will rise to £10 within six months, and likely to rise to  
£15 or £20 within two years. It CANNOT fail to prove a LASTING DIVIDEND-  
paying mine. Price £4 to £4 1/2.

**PENNERLEY (LEAD) MINE LIMITED.**  
This mine is in the Roman Gravels district, and opening up rich for lead. They  
have £3000 cash in hand, and are now working at a profit of over £200 per month,  
which profit will soon increase. It will become a first-class property and pay well.  
Shares will advance very considerably in price during the next few months.  
Price, 2 1/2 to 3, and well worth buying.

**NANGILES—110 Shares for Sale.** All calls paid. Offer wanted.  
**GOULD SHARP AND CO.** will give reliable information to shareholders and  
investors upon all mining matters. They only advise those mines which are really  
good and sound and worth attention. They BUY and SELL, at the closest market  
dealing prices of the day, Stocks and Shares of every description.

**MESSRS. LAVINGTON AND PENNINGTON,**  
3, ROYAL EXCHANGE BUILDINGS, E.C., STOCK AND SHARE  
DEALERS, have BUSINESS in the undermentioned:—  
Birdseye. Tecoma. Sweetland Creek.  
Emma. West Wheal Gorland. Malpas.  
Flagstaff. Gold Run. Buller.  
Kitty (St. Agnes). Pacific. Roca.  
Cedar Creek. Malabar. West Esqair Lie.  
Parties wishing to purchase or sell in the foregoing are requested to make early  
application.  
**LAVINGTON AND PENNINGTON, SWORN BROKERS.**

**TO INVESTORS.—NOW READY.**  
**LAVINGTON AND PENNINGTON'S "MONTHLY RECORD**  
OF INVESTMENTS," containing an exhaustive Review of the British and  
Foreign Stock and Money Markets, &c., with an enumeration of safe  
investments, paying from 10 to 20 per cent. Price 6d. per copy, or 5s. annually.  
**LAVINGTON AND PENNINGTON, 3, Royal Exchange-buildings, E.C.**

**MR. THOMAS SPARGO, MINING ENGINEER, STOCK AND**  
SHARE DEALER, 224 and 225, GRESHAM HOUSE,  
OLD BROAD STREET, LONDON, E.C.

**MESSRS. VALENTINE & CO., 17 AND 18, CORNHILL, E.C.,**  
BANKERS, BROKERS, AND FINANCIAL AGENTS.  
Sales of Stocks and Shares, by Public Auction, every Tuesday, at the Mart,  
Tokenhouse-yard, E.C.

**MR. JOHN WILSON, 103, PIMLICO ROAD, LONDON, S.W.,**  
OFFERS the undermentioned SHARES FOR SALE, at net prices:—  
50 Allt-y-Crib, 25s. 6d. 50 Excelsior, 7s. 100 Pestarena, 4s. 6d.  
25 Birdseye Creek, £2 1/2. 70 Eberhardt, £6 1/2. 50 Pacific, 6s. 6d.  
50 Cleggyon, 7s. 6d. 50 Herodsfoot, £7. 200 West Caradon, 2s.  
BUYER of Aberdunant, East Llangynog, and Plynlimmon.

**MR. HENRY MANSELL, STOCK AND SHARE DEALER,**  
14, GREAT WINCHESTER STREET, LONDON, E.C.

**BALLYCUMMISK COPPER MINING COMPANY (LIMITED).**  
MR. HENRY MANSELL advises an immediate purchase of shares in the above for  
a great advance from the present price. Upwards of 600 tons of rich copper ore  
has been raised and sold within the last few months at prices ranging to £16 10s.  
per ton, and another large parcel is being got in readiness for market. H. MANSELL  
can offer 100 fully paid shares (or part of same) at £2 5s. per share.

**MAUDSLAY AND CO., STOCK AND SHARE BROKERS**  
3, CRAVEN-STREET, STRAND, LONDON, AND ST. AUUSTELL,  
CORNWALL, transact business in all Stocks, Shares, and Miscellaneous Securities,  
at close market prices.  
MAUDSLAY and Co. having a branch establishment in the heart of Cornwall,  
can furnish the earliest information of discoveries in mines, enabling their clients  
to anticipate the rise in price of shares.  
MAUDSLAY and Co.'s Monthly Reflex upon Mines and Mining and Financial and  
Miscellaneous Undertakings should be consulted by all Investors. Forwarded free  
for two stamps, on application to 3, Craven-street, Strand, London.

**MESSRS. HARLAND AND CO., STOCK AND SHARE**  
DEALERS, 235 and 236, GRESHAM HOUSE, OLD BROAD STREET,  
LONDON, E.C. Attention is particularly requested to:—  
Tylwyd. St. Lawrence. Manghold Head.  
Clee Hill Colliery. Midlothian Mineral Oil. North Pool.  
Boscawell Downs. Penstruthal. South Merlyn.  
Denbighshire.

**WEEKLY PRICE LIST AND CIRCULAR, post free on application.**

**MESSRS. SANDY AND CO.** call special attention to the under-  
mentioned valuable mineral properties, having full confidence in the same,  
from veritable reports recently made by practical experienced agents. All the said  
properties are certain to take a good position in the market at an early date.—Wheal  
Mary, £5; Wheal Tregoes, 30s.; St. Dennis Consols, 25s.; Castle-an-Dinas, £2.  
OFFER WANTED for 50 Allumina Palace; 125 Wheal Whisper; 100 Fortescue  
Consols; 40 Battle Mountain; 10 Simpson Hotel Co. (Limited); and 35 West Jewels.  
2, Pinner's-court, Old Broad-street, London.

**INVESTORS IN ENGLISH AND FOREIGN BONDS,**  
Railways, Bank Shares, Mines, should consult  
**THE "INVESTMENT REVIEW,"**  
Independent, Fearless, and Exhaustive,  
By JOHN R. PIKE, STOCK AND SHARE DEALER,  
CROWN CHAMBERS, THREEDLE STREET, LONDON.  
Post free, Threepence.

**BARTLETT AND CHAPMAN, 36, CORNHILL, LONDON,**  
have SPECIAL BUSINESS (as Buyers or Sellers) in the following,  
close net prices:—

The Lovell.	West Chiverton.	Penstruthal.
East Lovell.	Llanarmon.	West Gwennap Consols.
Great Laxey.	North Jane.	Van Consols.

Before investing, read our publications:—  
"Handy Book for Investors" (third edition), price 10s. 6d.  
"British Mines and Mining," price 2s. 6d.  
"Investors' Directory," price 1s. 6d.  
The "Investment and Financial Record," will be sent FREE on application.  
Bankers: London and Westminster.

**750 BLAKE'S PATENT ORE-CRUSHERS**  
NOW IN USE.  
For catalogues, apply to—  
MR. H. R. MARSDEN, SOHO FOUNDRY, LEEDS,  
Only maker in the United Kingdom.

**MR. JOHN CARTER, MINE SHARE DEALER,**  
CAMBORNE, CORNWALL, transacts business in every description of  
shares at close market prices of the day.  
A selected list of sound dividend mines for investment may be had on application.







Dr. RAMBAULT, in concluding the course, briefly summarised the facts of the three epochs, and the conclusions to which they led, and said that he had endeavoured to prove that a long continental epoch extended from the time of the commencement of the Old Red Sandstone to the close of the New Red Marl. With regard to question of its duration, there is no means of accurately measuring such time, we may make some sort of estimate of it by noting the gradual changes in the life of life. He did not believe in a new creation commencing with a new formation, but held with Mr. Darwin that there has been a slow progression of life from first commencement down to the present day. And if this doctrine of modification of species be true, if there be a long continental epoch, it is exceedingly unlikely that when the land sinks down again the seas that cover it shall be colonised by species identical with those that lived during the deposition of the lower formations of which the continent was formed. Take the Upper Silurian rocks and the carboniferous limestone, and a great number of the genera found in the latter are identical with those in the Silurian rocks, but there are also many which are new, and I believe that even the corals found in the carboniferous limestone are different from those of the Silurian. Besides this, we have only a faint shadow of prime life in the salt water lakes of the magnesian limestone, where two or three











7. The loads in the present end is 2 to 4 times



opper ore, embedded in gossan and spar. In driving the deep adit south from the upper level, on the cross-course, we have not yet struck the main part of South Condorow tin lode.

**SOUTH VAN.**—James Roach, April 24: The lode in the 40 east is 5 feet wide, with well-defined walls, and consists of flookan, lime-spar, and carbonate of iron. It is highly promising and I expect it will soon lead to good results. The ground is moderately easy for driving, therefore good progress is being made.

**SOUTH WARD.**—R. Goldsworthy, April 23: Setting Report: The 60, to drive north, 2 men, at 3¢. per fm.; lode 3 ft. wide, producing mungie, blond, and occasionally good pieces of iron. The 40, to drive south, 2 men, at 3¢. per fm.; lode 3 ft. wide, and from its appearance I fully expect a very good improvement. To drive the 40 south, by two men, at 2¢. 10s. per fathom; lode 2 feet wide, producing 4 cwt. of lead per fm. We shall have to stop the engine often during the next fortnight to put down pitwork. The stuff has already accumulated in the mine, consequently we have suspended the 40 end north and No. 1 stop. No 2 is re-let to two men, at 1¢. per fm.; two stops in the 40 south are let to four men at 2¢. 10s. per fathom; average produce of the stops, 2 cwt. of lead per fathom. The shaftmen are making good progress in the 40 south. The tin in the 40 work we have promised them a premium of 1¢. 10s. if completed by the 17th of May.

**ST. AGNES CONSOLS.**—W. Vivian, April 24: In the 3¢, driving east of the cross-cut, the lode is 4 ft. wide, worth 9¢. per fathom. Driving west of the cross-cut the lode is 3 ft. wide, worth 8¢. per fathom. The stops in the back of the lode are worth 9¢. per fathom. In the 2¢, driving east of the engine-shaft, the lode is 2 ft. wide, very kindly in appearance, producing good stones of tin. No change to be made in the 2¢, as the lode is so good.

**ST. BLAZEY CONSOLS.**—P. Rich, April 24: In drifting the adit level north of the 8¢. Blazey shaft we have cut another lode, 2 feet wide, of a very promising character. In the shaft sinking at the costean pit, the lode is 6 ft. wide, well defined, and yielding much paying tinstuff. At trial shaft the lode is very large; we are taking it partly down, and adding much tinny stuff for the stamps. The machinery is making fair progress towards completion.

**ST. DENNIS CONSOLS.**—Thomas Parkyn, April 23: South Lode: I have no alteration to report to the 22, as the 22 is still making little work for tin, and yet has a large pile of rich tin stuff now at surface, and a stop opened underground, so that a large supply can be had here for the stamps. I intend to leave this for a time, and sink a shaft on what is called the Old St. Dennis lode. This lode is known to be very productive for tin, and is 12 feet wide. We have commenced the shaft this morning, and will report to you our progress, &c., in future reports.

**ST. JUST AMALGAMATED.**—Richard Pryor, Nicholas Bartle, Thos. Richards, &c., April 23: The 22, driving east of the engine-shaft, sinking below the 110, is worth 1¢. 12¢. per fathom. The 20, driving east of the 22, is worth 1¢. 10s. of shaft, is worth 8¢. per fathom. The lode in No. 1 winze, west of shaft, is worth 7¢. per fathom, and that in No. 2 winze is worth 6¢. per fathom. The lode in the 0, east of shaft, is worth 7¢. per fathom. Our bargains are looking better on the whole. Saturday next being our pay and setting day a full report shall be sent you.

**ST. LAWRENCE AMALGAMATED.**—Wm. Wasley, April 24: St. Lawrence: The lode in the sump in the bottom of the 52 yard level is still about 3 ft. wide, producing good stuff for the stamps. The 40, driving east of the engine-shaft, in the cross-cut, has further improved, and is letting out more water, and I fully expect we shall soon cut the lode. I am pushing on the dressing, and hope to get 10 tons in time for the sale on the 6th of May.

**TAMAR VALLEY.**—J. Goldsworthy, April 24: Good progress is being made in the cutting of plant, easing and dividing of western engine-shaft below the 57, and no time will be lost in sinking the shaft as soon as the kibbles are brought down. There is no change to notice in any of the other bargains this week.

**TRELEIGH WOOD.**—E. Hosking, April 23: The 44 fathom level is sinking down to the bottom of the 140, and the drivage east commenced. The vein in this end is 6 ft. wide, rich in lead ore throughout; west of shaft there is a wide cavity, but we cannot speak as to the value of the lode in that direction until we shoot into the sides of the big Hugh. We believe there is a rich course of ore on both sides, and shall be able to speak for certainty on that point in our next report. Taking the lode altogether in the bottom of the 44 fathom level, it is a splendid course of ore. The 34 fathoms in the 130, west and east of shaft (three in number), are worth on an average 50¢. per fathom. The 34 fathoms in the 120, west and east of shaft, are yielding 5 tons per fathom. The stop in the back of the 50, east of Brown's shaft, is worth 50¢. per fathom. The lode in the 74, east of old shaft cross-cut, is worth 60¢. per fathom. The stop in the bottom of the 42, east of old shaft cross-cut, is worth 3 tons, or 50¢. per fathom. The new permanent engine-shaft is now completed from surface to the 110. Another week's delay in drawing would enable us to complete the shaft to the 130. We shall sample our usual quantity of ore to-morrow.

**TRELEIGH DOCK.**—J. and T. Spargo, April 23: We have taken down more of the lode in driving No. 2 level toward the junction of No. 3 lode, which still continues of a very favourable appearance, and yields some rich lead. The ground is highly mineralised and more favourable for driving, therefore good progress is making towards the junction, at which point we almost feel certain 'to find a rich lode. We advise (now that the weather has become dry) to intersect the junction of No. 1 and 2 lodes near the eastern shaft. There is only about 3 or 4 fms. to drive, and the ground is so good that the shaft will be a fine one, and will probably open up a fine feature in your property. All other parts of the mine without alteration.

**TRELEIGH WOOD.**—E. Hosking, April 23: The lode in the 44 fathom level west is worth 12¢. per fathom. The 44 fathom level east is without change. The 34 fathom level, east of cross-course, is still letting out a quantity of water; the ground is hard, and spare for driving. The 24 still mixed with killas, but producing a little tin. The 12 east is worth 8¢. per fathom. The stops are much the same in value as last reported.

**TRELEIGH DOCK.**—J. and T. Lead, April 23: We are clearing the levels, &c., as fast as possible. We have also commenced to repair and enlarge the shaft from surface on the south lode 30 fms. east of mouth of level, in order to make this the main engine shaft, it being the most convenient for all practical purposes there being a good fall to deposit all the stuff, which is also very convenient for making slides so that the ore can be separated and nothing taken to the crusher more than is essentially necessary. This shaft is commenced, and is to be carried down 12 ft. long, by 6 ft. wide. I should propose its being sunk perpendicularly, and the 24 fms. level to be cut at the different levels, as it can be sunk cheaper and will be more convenient for hauling, and will be a very great saving in timber, shaft at bed panks, &c. I may here remark that this shaft is 30 fms. east of the shaft at mouth of level, mentioned in Mr. Eddy's report (and others), with ore in bottom of same; but this is a very inconvenient place for an engine-shaft for all purposes, and would have to be enlarged from top to bottom. There are 30 fms. of ore ground between these two points which can be taken away to the best advantage when the shaft is done, and the ground properly laid open. We may make considerable returns from this place. All other arrangements are being made as fast as possible.

**VAN CONSOLS.**—James Roach, April 24: In the 60, east of Gundy's, we are making good progress in driving, and, as I said in my last, we shall not test the value of the lode until the communication I then referred to shall be accomplished. The winze under the 45 is nearly 14 fathoms deep, and will, I believe, be communicated with the level below in the course of the ensuing month. The 45 east, on north side of Gundy's shaft, the lode has been driven 10 fms. and is very good stuff. The winze sinking under the 45 is being carried down 7 feet wide in the lode, and is worth for this width 150¢. per fathom; there is yet another part of the lode to cut down. In the 35, west of rise, we have reached a band of gristone, which is traversed by a good branch of solid lead leading towards the footwall; this is likely to lead to something very much better. In the 25, east of Little's, we are still making good progress, and although the lode has not yet been cut through, I believe we shall soon meet with a course of ore, as that part of the lode we are now driving on, in the 75, is a good line, and as the lode has been driven 10 fms. and is very good stuff, but we are now crossing a gristone band; as soon as we get through this I believe we shall find the junction of lodes which produced a large quantity of lead ore 40 fathoms above this point. We have started a stop in the 35, but not in best part of the ore; this is yielding about 3 tons per fm.; next week I intend to start two stops more. The machinery on upper flooring is doing well, and we are conditioning the ore for crusher and patent jiggings. All our machinery is in excellent order, and is doing its best.

**WEST AGNES.**—P. Rich, April 23: No alteration in the engine-shaft. New Shaft: We continue sinking on the cross-course south of the shaft, but there is no alteration in the lode to remark on.

**WEST CARADON.**—N. Richards, J. Pryor, April 23: The lode in the 77, west of cross-course, is still unproductive. East of ditto we have intersected a cross-branch, the other side of which we hope to get an improvement, but if the lode does not improve quickly we intend to suspend it, and put the men to sink the shaft, the lode in which is very good stuff, and is getting through the 45, and is very good stuff. We may reasonably expect an improvement in the lode. The 45 in the 42, east of shaft, will yield ½ ton of copper ore per fathom. In the 42 cross-cut south we have cut a lode about 6 in. wide, composed of quartz, fluor-spar, and rich black and yellow copper ore, worth of the latter ½ ton per fathom, and we hope it will improve as we get away from the influence of the cross-course. The lode in the 30, east of shaft, will produce ½ ton of copper ore per fathom. The lode in the winze sinking below this level will yield 2½ tons per fathom. There is nothing particular in the 20, as the lode is very good stuff, and the stops are productive of the usual quantity of copper ore.

**WEST DRAKE WALLS.**—Thos. Gregory, April 23: The lode in the 95, west of engine-shaft, is about 2½ feet wide, composed of quartz, apatite, and strong mundie, with a little copper ore; the lode altogether is improving in appearance as we leave the cross-course. In the 75 east the lode is yet in a disordered state from the influence of the cross-course.

**WEST ESCAIR LE.**—R. Harvey, April 24: The different underground bargains are all in a promising condition, and work well, and good progress is being made in all our surface work. A full report will be sent you next week.

**WEST GOLDFILIN.**—J. Pope, jun., April 23: There is no change in this mine worthy of remark since my last report. I will send full report in time for the committee meeting, on Tuesday next.

**WEST GOGINAN.**—J. Kitter, April 21: Since my last monthly report the sinking of the engine shaft, together with the drivings in the deep adit level, both east and west on the course of the lode, have been regularly and satisfactorily progressing, and the machinery is in a good state of repair. The 40, driving east of the engine-shaft, is being prosecuted with full force, and no time will be lost in getting down for a deeper level, where we may reasonably expect to find the lode more productive of ore. In the adit level driving west the lode is at present inclining southward much more than usual, and I am strongly of opinion that we are getting very near the counter lode, where I have no doubt we shall meet with a decided improvement. The widening of the level and working of tramroads have all been completed, &c. CONSOLS.—Richard Pryor, April 21: We have commenced cutting through the lode in the 50, west of Plantation Shaft, and judging from the present appearance we think it is very large at this point. The ground in the 50 cross-cut north is just the same as when last reported on, but we have not reached the lode as yet. We are making fair progress in the cutting down of Broadgate shaft, and the masons are getting on well with the building of the engine-house.

**WEST GREAT WORK.**—Samuel J. Reed, April 24: The lower meadow flat-rod shaft, being driven the 16 west on Croft Gothal lode, so as to reach the junction of the Treescow Moor lode as soon as possible. The Treescow Moor lode, in the 10 west, is 4 ft. wide, worth 11¢. per fathom. In the east end the lode is 3 ft. wide, worth 15¢. per fathom, and the appearances generally are highly promising, seeing that we have driven through a lode of these values for 8 fathoms in length during the present month. The 10 west, on Croft Gothal lode, is being pushed on, where we looked forward to further improvement in the course of a few fathoms. The 10 east, on Croft Gothal lode, is being divided and eased below the 10, where the lode contains stones of copper ore and tinstuff that leave a profit on stamping.

**WEST GWENAP CONSOLS.**—J. Nanconrow, April 24: The south shaft

[illegible]



1. Give a list of countries in the world.







\*. \* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be *filed on receipt*: it then forms an accumulating useful work of reference.

\*. \* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be *filed on receipt*: it then forms an accumulating useful work of reference.

**Six.**—Will any reader be good enough to answer the following queries?—1. What is the commercial use of fine white siliceous sand, from the superior oolite?—2. Its market value per ton?—3. Is sand detrimental to limestone as an iron flux—say, to the amount of 10 per cent.—J. R. D.

**COPPER ORES, AND COPPER.**—I shall be glad if any reader will inform me through the Journal what is the difference or the margin reserved by the buyers of copper ore, as on the 17th inst. the sale of ore at Truro realised 67*l.* 11*s.* per ton for ore copper, while tough cake is quoted at 98*s.*; and even Chili bars at 92*l.* 10*s.* per ton. It is strange that copper ore is selling at so low a standard with the above prices for metal.—CONISTON.

**COMPANIES ACTS.**—"J. C." (Carmarthenshire).—The best edition of the Companies Acts, 1862-7, is that by Anthony Pulbrook, solicitor. The price is 6s., and it is published by Effingham Wilson, of the Royal Exchange. A small work, "Joint Stock Companies: How to form them," by Mr. T. Tapping, Barrister-at-law, is published at the *Miners' Journal* Office, price 1s.

**DYNAMITE.**—Can any of your readers give me the address and name of the company making dynamite in or near Glasgow?—W. H. W.—[The address of the British Dynamite Company is 7, Royal Bank-place, Glasgow—Mr. John Downie, manager.]

**SLATE QUARRY MANAGEMENT.**—My attention has just been called to the letter of "W. E. P." (Capel Curig) in the Journal of April 5, in which the writer appears to want your readers to believe something wonderful has happened at a slate quarry. I am wishful to know what it is, for I am afraid that something has happened which is completely destroying about 500 tons of slate rock.—S. P.

English COPPER FOR AMERICA.—I have been for many years doing business in Lake Superior copper, but having recently taken up the selling of ingot copper in the Western States, I find that in many cases English is preferred. Would it be possible to arrange with a reliable party in England to execute orders on actual sales made here. There is an opening for quite a business in the future.—G. N. B.: Detroit, Michigan.

**MALAGA.**—"A Shareholder" should write to Mr. J. Farie, the secretary, at the company's office, Great Winchester-street-buildings, London, who will send every information.

**AMERICAN SUBSCRIBERS.**—In reply to several enquiries, it may be stated that subscribers in the United States can be supplied with the *Mining Journal*, post free, at the price of \$8 gold per annum, payable in advance, by remitting to Mr. D. Van Nostrand, publisher, and importer of scientific books, &c., Murray-street, New York: or direct to our Office, 26, Fleet-street, E.C.

**MINING SHARES.**—We are continually receiving letters asking our opinion as to the present and prospective value of shares in various mines. On reflection, it must be evident how imprudent, for many reasons, it must be to think of relying on our opinion. It is not our business to recommend it to transact business through a responsible and competent broker, who, of course, it is to be in possession of reliable information, and, on application, to keep their clients well and properly posted on all probable changes. Their own position and character are sufficient guarantee that they will not intentionally mislead.

Received.—"J. L." (Maidanpek)—"B. W. H."—"Shareholder" (Emma)—"B. H."—"W. A. M."—"M. E."—"A. G. D. W." (New York)—"X. Y. Z."—"J. M."—"Scrutator"—"Novice:" We never recommend shares; apply to a broker—"Reader."

## Railway and Commercial Gazette.

LONDON, APRIL 26, 1873.

## MINERS' UNIONS, AND THEIR LEADERS.

In trade associations, as well as in many other affairs, the axiom that "Union is Strength" holds good where the objects that called it into existence are such as might fairly and legitimately be claimed by any individual member composing it. But when a Union is started for the purpose of raising into prominence idle demagogues, who pander to the prejudices of the least intelligent portion of the working classes, and endeavour to obtain by sheer force of numbers what they could not expect otherwise, then is menaced alike the liberty which belongs to the workmen as well as the master, and ignorance and intelligence are placed on equal terms. Yet combinations may be formed as useful to employer and employed as they can in exactly the opposition direction. Those two phases of combination are shown in a very striking manner by the present position and condition of two of the best-known colliery bodies in the kingdom—the South Yorkshire Miners' Association, and the Amalgamated Association of Miners. The tactics of these two Unions are the exact antipodes of each other. One acts for the prevention of strikes, the other appears to foster them by keeping up a strong agitating staff. The leaders of the two associations may also be said to be the opposite of each other, those on one side being solid, practical, and argumentative, whilst the other is headed by a leader whose mental calibre is very little, if at all, removed from that of the ordinary collier—one who appeals more to the passions than the reasoning powers of those who act by his direction.

those who will act of this direction.

As both associations as well as the leaders have recently occupied a good deal of public attention, a brief notice of them may probably interest, seeing that they wield a power for good or evil, may be felt almost any day in connection with the wages question as affecting colliers. The South Yorkshire Miners' Association is one of the most prosperous societies of working men in the kingdom, having upwards of 16,000 members, and a capital of something like 30,000*l*. It holds out great advantages, not only as relates to trade purposes, but combines all the benefits obtained from life assurance, with a provision in case of sickness or accident, and when old age no longer allows of a member working. The widows and orphans are also cared for by a liberal weekly allowance, so that, in fact, from the cradle to the coffin the child and then the man is not allowed to suffer want from any of the "ills that flesh is heir to." Sums are granted to various charitable institutions, and for the promotion of all schemes calculated in any way to benefit the working classes. Indeed, only last Monday the sum of 1000*l*. was voted to the PLIMSOLL Fund by the council. Mr. J. NORMANSELL and Mr. P. CASEY are the secretaries, and we may say the managers, and to their efforts since the formation of the Association in 1858 is its present prosperous state mainly, if not entirely, due. They are both men of business, combined with sound, practical sense, and are able to express their views in terse and forcible language. Their policy, as often stated, has been to settle all disputes without ever thinking of a strike, and the consequence is that their services are in frequent request by colliery owners when the men make demands—as we suppose will always be the case—which are not founded on right. Such has been their success in that direction that only a week or two since by their intervention they brought the strike of the Barnsley linen weavers to a close after it had lasted for upwards of seven months. Their abilities have also been recognised and appreciated by their fellow-townsmen, for in the formation of a school board in Barnsley Mr. CASEY was returned at the head of the poll, whilst Mr. NORMANSELL was last year elected a member of the Town Council—a position which they held with credit to themselves and advantage to the town they belong to.

The Amalgamated Association of Miners is a comparatively new organisation, the first conference having been held, at Bolton, little more than four years ago. So far its objects appear to have been entirely aggressive, waging either an open or guerilla war against capital, and it may be said that in nearly all places which it has visited it generally left traces of wreckage behind. The latest scene of devastation was South Wales, where the strike was a signal failure, whilst the misery it caused will in many instances never be obliterated. In the rules of the Amalgamated special provisions are made for strikes, one of the rules stating "That the objects shall be to keep the peace, and to prevent, as far as possible, any undue advantage being taken by employers or employed." Although numbering some 50,000 or 60,000 members the accumulated capital before the struggle in South Wales was only about 5000*l.*, whilst the strike cost 34,000*l.* The governing body of the association includes a president, treasurer, and secretary, whilst movable conferences are held half-yearly, and agents are employed in different districts to keep the agitation warm and the spirits of the men from drooping. The president (Mr. T. HALIDAY) is comparatively a young man, having a store at Little Lever, so that it is a very long time since he has done any work in a colliery. He is glib of tongue, but

devoid of anything in the shape of originality, his speeches being mere reiteration of what has been better said by other speakers, whilst on general topics he is quite blank. With very little education or ability he has no lack of ambition, and he has been put forward as a candidate at the next election for Merthyr. We may say that, in our opinion, it would be far from creditable to the working classes were he returned, seeing that there are so many abler men connected with the miners—such as McDONALD, CRAWFORD, NORMANSELL, CASEY, BURT, and a hundred others, to whose intelligence it would be an insult to include in the same category with that of Mr. HALLIDAY.

We may, however, safely infer that Mr. HALLIDAY will not be the man for Merthyr, nor for any other constituency where there is any number of working men of average intellect. After the president of the Amalgamated Association comes the treasurer, Mr. W. PICKARD. He is a man in every way superior to his chief, holds a good social position, and is a candidate for the representation of Wigan. Mr. PICKARD is a good practical man, of business habits, understands what he speaks about, and would make a very efficient representative of the mining body. Having thus noticed the two great mining associations who have their head-quarters in adjoining counties, and the different policies they pursue, we may say that we should like to see the working men of the country represented in Parliament by members of their own class, but we should very much regret to see any person sent become the laughing-stock of the House of Commons, or the name of a member become synonymous with imbecility. There are plenty of really able and intelligent working men, and it is from them that the representatives of their class must be chosen to advocate their interests in Parliament, and such will, we are sure, obtain the respect and consideration of the most able and intelligent representative assembly in the world, but which would not be accorded to mere demagogues.

## PREVENTION OF ACCIDENTS IN COLLIERIES.

THE HERMON PRIZES.

We have been requested by several of the writers of the essays for the prizes offered by Mr. HERMON, M.P., for the best means of preventing accidents in collieries, to make a last appeal on their behalf, and to ask what has become of the papers sent in for competition so far back as February, 1872. After a lapse of 14 months it is considered by them that the time has arrived when some intimation should be given as to what progress, if any, has been made towards a final decision as to the relative merits of their productions. They do not believe that Mr. HERMON, in his well-meant desire to ensure increased safety to all persons engaged in our coal mines, intended that those whom he invited to undertake a work to them of such magnitude as the writing of and in some instances illustrating essays, should have their labours treated with what they consider neglect, if not contempt. Heavy as the duties must undoubtedly be of the judges if the judging is carried out to the full extent the importance of the subject renders necessary, yet once undertaken they ought in honour to be accomplished faithfully and fully, and within a reasonable time. So far as regards time, we think it will be admitted that the writers of the essays have some ground for complaint, for we feel assured that not one of them ever dreamt that after the lapse of more than a year they would still be in the dark as to the result of their efforts to solve a question of such moment as that relating to the safety to life and limb of a body of men who minister so much to our social comfort, and to whose labours we are indebted principally for our manufacturing and commercial status amongst nations. On whose shoulders, then, the blame for the apparent neglect ought to be placed we are unable to say, but it certainly cannot to the slightest extent rest upon those of Mr. HERMON, whose annoyance we can well believe is fully as great as that of the writers themselves, and who would only be too happy in discharging his obligations in the matter at once. It is, however, only fair towards one of the judges, Mr. F. WARDELL, the Government Inspector of Mines for Yorkshire, to state that some three or four months since he stated in our columns that up to that time he had never seen one of the essays. Such being the case, perhaps Mr. HUGHES, M.P., and the other gentlemen who were appointed adjudicators along with Mr. WARDELL, would inform those most interested in the manuscripts what they know of them. By such means there would be some chance of the essays being brought to light and an end made to the whole business, either (in the event of no progress having been made by the judges appointed in the first instance) by getting some qualified persons to read the papers over and make an award—even if their services had to be paid for—or allow the whole matter to collapse and return the manuscripts to the writers. Such a course would be far preferable to that which has so far prevailed of no sign being made as to who had the essays, where they were, or whether the writers during their lifetime were likely to hear anything of them, let alone being made acquainted with the names of the successful competitors, or the means by which it was proposed to have our collieries worked so as to ensure greater freedom than at present from accidents by explosions as well as from other causes. That much valuable information is embodied in the productions of several of the writers we feel tolerably certain, for amongst those who entered the lists as competitors were several of the leaders connected with our mining associations, including such names as those of Mr. CASEY, of South Yorkshire, and Mr. DIXON, of West Yorkshire, both practical men of great experience, although now not engaged in mining. In Lancashire, also, some of the best men have also engaged in the competition, so that our knowledge as to mining in some essentials would doubtless be increased by the publication of some of the essays. Such information, we may say, would have been highly desirable had it been made available before the Special Rules to be framed in accordance with the Act of last sessions were drawn up, and had become legally binding upon the miners, for some of the suggestions made by the writers for the prizes might have been embodied in them, either wholly or in a modified form. Such in all probability would have been the case, for we know that some suggestions made by one of the essayists, at least, were actually introduced into the Bill by Mr. BRUCE after it had been some time before the House—a fact sufficiently significant as showing that in some of these writings at least there is much valuable matter. The great delay in making the award has consequently been the means of lessening the value of what is really good to be found in the matured opinions of some 500 of the most intelligent miners in the kingdom on a subject to them of vital importance, and with which they are not only thoroughly acquainted, but often on too familiar terms with. In the interest of those men, then, whose patience we must say has been sorely tried, we would ask again, and for the last time, ask where the essays are supposed to be, and if adjudication is likely to be made this year or not? The answer is due to the writers, and we trust it will not be withheld from them. True, they are only in the position of miners, but in answer to the invitation of Mr. HERMON, they performed a task which called forth all their intellectual powers and practical knowledge, and it is only fair towards them that the bargain entered into on the other side should be completed within a reasonable time.

Since the above was written we understand that some progress has been made with regard to the adjudication, the number of essays having been reduced to a comparatively small figure, the grain being carefully sifted from the chaff. We have also been informed that amongst the persons who sent in essays there is one mining engineer, if not two; but we presume they only sent in papers, not with a view to taking either of the prizes, but to give their views as to what could be effected by adopting certain provisions in preventing accidents. Of course, it would have been much better, we think, to have let the working miners have had all the say, as they were the persons who alone were entitled to compete, and to whom only the prizes can be awarded. The above, we have given on what we consider very good authority, and we now hope that but a very short time will elapse before the award is made, and the whole affair brought to a satisfactory close. This is a consummation devoutly to be desired, not only in the interest of the men who have written on such a very important subject, but for those whom it is to be hoped will be benefited by the provisions proposed to ensure

their safety whilst working underground, and also to relieve HERMON from a position which for some time must have been from pleasant.

THE RUSSIA COPPER COMPANY

That the several statements in the report of the Committee Investigation were some contradictory and some dictated by personal ill-feeling we asserted in last week's *Mining Journal* we had but the committee's report whereupon to base our opinion, and had not had the advantage of knowing what replies the directors and the managers had to offer. The issue of proxies does not in the slightest degree lead to modification of our views, but the last sentence of the directors' reply certainly explains why damaging statements could be so unhesitatingly made—shareholders should know that the Chairman of the committee (which had issued a report so reckless as to send down the price of the shares more than 50 per cent. on the day of its publication) was at the date of the committee's report *only two shares* of the company. This fact, taken in connection with the circumstance that the committee begged the postponement of the adjourned meeting (to which the directors at once assented), and utilised the delay obtained to get additional proxies signed to oppose the directors, may well induce the shareholders to pause before entrusting their voting power to persons having but little stake in the concern; or if they have already given proxies, they might even feel inclined to withdraw them by sending duplicate notices of withdrawal to the persons who have improperly obtained the proxies, and to the Chairman of the meeting.

The reply of the directors confirms our views expressed last week to a remarkable degree, and the committee will probably find it difficult to refute the directors' declaration, that "even where there is not absolute departure from fact, there is a colour given to the report which makes the report untrue in spirit and false in suggestion." In many cases the directors are able to give a direct denial to the assertions of the committee, and with regard to those having a semblance of accuracy the statement of the other side of the question greatly alters the complexion of the matters. Thus the direct denial that their selection or nomination "was chiefly attributable to Mr. GRANT or Mr. BROGDEN," and probably no one acquainted with City affairs could read the list of directors and then suppose that nomination had been from the quarter suggested. Again, as to the estimate of the works before purchase, it is mentioned that all the information has been procured as early as possible, and by the directors, not by the committee.

The meeting of "intending directors" on Aug. 2, of which the committee could discover no minutes, was never held. At a meeting on Aug. 3 the prospectus was agreed to, and the company ordered to be registered, the prospectus being, according to custom, drawn up by the vendor, and submitted in draft to the proposed directors. The fact that the directors took a guarantee that there were 500 tons of stocks in hand is sufficient evidence that they had done all in their power to ascertain that there was an ample stock of ore and claims on hand for carrying on the works efficiently; by their failure to do so the company are to be reimbursed now that the valuation has proved too high. The committee's assertion that the production of the first year has been only "150 tons of copper (valued at 1000)" is shown to be unjustifiable, Capt. RICKARD having estimated only 400 to 500 tons for the first year.

The directors explain that the deficiency of labour was only discovered through Capt. BEAUMONT's report, a copy of which was given by the directors to every shareholder. The deficiency was, moreover, to be merely temporary, and may be entirely remedied when the necessary accommodation for workmen and their families is provided. In estimating the profit the committee have also conveyed a false impression by stating that "by the 1281st acre of rich land and its stock only 340*l.* 3*s.* 7*d.* had been produced" in June 30 the crops had not been sold, and profit was not counted on a mere estimate which might not be realised, but these crops had since been sold. The committee knew this perfectly well, and yet held to have concealed it purposely. As to the purchase of the property, it appears that the directors really did obtain the guarantee of the bank that moveables of a specified value were on the property, and that the committee's reason for attributing "shamefully unbusinesslike conduct to the directors does not exist. The financial position of the company was known to the committee to be sound, although they inferred the opposite by stating that the cash balance in England and Russia amounts to 7199*l.* odd, after including the 10,000*l.* left by Mr. BROGDEN in the hands of the company." The committee knew that by an award which Mr. BROGDEN had made on this 10,000*l.* was transferred to the company, and 874*l.* 11*s.* 6*d.* more was forthcoming from him.

The directors admit that they placed reliance on Messrs JAMES TAYLOR and SONS, and continue to place full confidence in them. The majority properly remarking that it does not "appear relevant to the case to draw forward repeated allusions to the Mineral Hill Silver Mines Company as proof that the directors should not have done so, and that the failure of the Mineral Hill Mines is an event long subsequent to the formation of this company." There is no foundation for the charge that several times repeated by the committee, that the directors were "three gentlemen to Russia at great expense to the company, and only to do things that ought to have been done before the purchase, and had anyone been sent out before the purchase it would still have been necessary to send out someone to take over the property and to effect the registration in the name of trustees, the chief purpose for which Capt. BEAUMONT was sent. Mr. MOORE was sent by the directors, not by the directors; and Mr. ROBINSON was sent by the directors. Mr. MOORE through his knowledge of the language, and particularly to report as to the commercial management out there; nothing more at the beginning would have made such a report needless." The committee's statement that Capt. BEAUMONT "did nothing to verify the stocks" is not true. The committee in one paragraph of their report admit their knowledge of the result of the action with Mr. BROGDEN, and the directors very truly remark that "many of their strongest statements could not have been written honestly with that knowledge."

And now we come to the most important point—the prospective company. These are, without any doubt, very considerably better than indicated by the committee; but, as the directors continue, whether these prospects would be brightened by suddenly narrowing the management into the hands of men whose power shows them so reckless of the interests of the company it would be well for the shareholders to weigh calmly. There is nothing in the suggestions of the committee that has not been fully considered by the directors long ago. As regards dispensing with the services of the Messrs. TAYLOR, which the committee consider so valuable, it is only fair to these gentlemen to say that the directors put the highest value upon their services, both in the general management of the concern and in guiding the directors concerning the sales of pepper. There was the greatest difficulty in getting Russian prices to respond to the advance in this country, and every sale was procured by the board after careful consultation, in which Messrs. TAYLOR and their intimate knowledge of the trade was of real value to the company. And it would be ruinous policy to leave the sales entirely in the direction of foreign agents. The directors are pleased with the committee's appreciation of the secretary's knowledge and services; the compliment is merited, and, of course, the committee would expect to retain those services under the new management, and in such a case it is hardly to decline breaking that connection.

In conclusion, the directors save the committee the trouble of sending a requisition signed for a special meeting to throw out the board by calling the meeting voluntarily. The directors would have considered it dishonourable to have voluntarily retired before the committee was established on a satisfactory basis and paying fair dividends; but the publication of the committee's report, and the attempt to displace the present board and give control of the company to the Chairman of the committee and one of his co-members place the directors in a different position, and they now no longer tender their resignations, and place their offices at the disposal of the shareholders. While very willing either to continue their



the United States figured in these totals for 7651 tons, against 6760 tons and 6878 tons respectively. The exports have increased this year to Russia, Germany, Holland, France, Spain, the United States, British America, and Australia; but they have decreased to British India. The value of the hoops, sheets, and plates exported from the United Kingdom in March was 333,271*l.*, as compared with 223,831*l.* in March, 1872, and 179,257*l.* in March, 1871; and in the three months ending March 31 this year 878,925*l.*, as compared with 608,332*l.* in the corresponding period of 1872, and 363,614*l.* in 1871.

*April 24.*—The sudden fall in the tin standard will be a serious matter if a recovery is not soon experienced. Things are cut too fine as it is at many of our mines to allow of a very prosperous condition of affairs at present prices; and, should the standard again drop, as it is rumoured it will do ere long, we may anticipate uncomfortable news. If either coals or materials were at their normal prices a temporary depression might be borne with comparative equanimity; but for tin to go down while they keep up is a stroke which it requires some fortitude to bear. There are not apparent, however, as yet any signs of relief in that quarter; on the contrary, at the recent meeting of Trumpett Consols not only the high figure of the coals supplied, but their quality, came under condemnation, and Mr. Henry Rogers, the purser, was authorised to import on the mine account. That is a step which only a few mines can take, but it is a step decidedly in the right direction. Whether just at present the coals will be obtainable very much cheaper in this way we may doubt; but that the quality can be improved by it we have not the least question. As usual, when the standard falls the smelters have come in for their share of the blame. Why is it that when matters are progressing in a fairly satisfactory way no one makes a move? It is not of the slightest use grumbling when the standard falls if that grumbling is not backed up by something like action. Besides, it seems to be forgotten that there is such a thing as delaying a rise as well as expediting a fall; and that such responsibility as is really the smelters' may exist when prices rule high as well as at such time as the present. The truth is that it is idle to make the smelting firms the scapegoats of every fluctuation of the market. The present drop, for example, does not appear to be within their control; but the proper way to meet the grievance that undoubtedly exists—though very few people seem to know how to define it—is for a few practical men, who have capital to invest as well as mines to manage and tin to sell, to unite for their mutual good. If they are prepared to do this, unquestionably tin mining will profit; if not, it is worse than useless to complain. Meanwhile, although it is quite possible that the sky may become yet more overcast for a short while, we do not anticipate that the depression can be of long duration.

The stoppage of Ballewdsdown Mine, now finally resolved upon, will not, unfortunately, add much to the working strength of the mines in the St. Just district. Since our last report another batch of 40 miners has emigrated therefrom. Why should St. Just be thus peculiarly denuded of its bone and sinew? There is no other mining district in Cornwall that, in proportion to its population, has suffered so severely.

Several of the mines which were started during the *furor* have changed hands lately—some to be stopped, others to be continued under different auspices, but a few of these are really very promising concerns, and as legitimate subjects for hopeful speculation as ever Cornwall knew. The paper companies were pretty well weeded out long since.

The rumour that South Crofty and East Pool have again communicated—this time in a deeper level than last—excited a good deal of interest at Redruth and Camborne. It is too early yet to speculate on the antecedents of this, though nothing serious appears to be involved. Dialling must settle the question what—if any—encroachment has been made.

An effort has been made to resuscitate the case of "Peck v. Smith," tried at the last Assizes in respect of the shares bought by defendant of the plaintiff in Duchy and Stucley Mine, as the former, alleged as agent for Mr. Augustus Grenville; as the latter said for himself. The Court of Queen's Bench refused a rule for a new trial on the ground that the balance of evidence was in favour of the defendant. We are not, therefore, likely to hear any more of this concern.

A fatal accident which occurred the other day to a man whilst on the man-engine at Cook's Kitchen has elicited the remarkable fact that there had not been an accident with the man-engine before for 14 years, although the average journeys per day up and down had been 150, each of 200 fathoms, or 560,000 journeys in the whole period. How many accidents would there not have been in that time with ladders, to say nothing of the injury to health which their use would have caused?

More reports of iron ore and manganese from North Devon; the discovery has been made this time upon Orleigh Court Estate, Buckland Brewer, near Bideford; several tons of ore of good produce have been raised. North Devon is on the high road to becoming an important mineral district.

*April 23.*—The Warrant Market became much firmer at the end of last week, and a good business was done up to 121s., which was the closing price on Friday. On Monday morning as high as 122s. was paid, but this price was not maintained, and the quotations during the afternoon were 121s. to 121s. 31. Yesterday the opening price was 121s. 3d., and a moderate business was done down to 120s. 3d.—closing with buyers at that price, and sellers asking 120s. 6d. To-day the market has been very flat, and a good business was done from 120s. 3d. to 118s.—closing at the lower price. There is not at present much speculation in the trade, and there is no excessive demand for pig-iron from any particular quarter; but, considering the high price, there is a fair general demand. The continued scarcity of iron in the Middlesbrough district causes more demand for Scotch brands, and stocks both in store and makers' hands are still being reduced. The undernoted quotations show a moderate advance on those of last week:—

SHIPMENTS.	
Week ending April 20, 1872	Tons 25,026
Week ending April 19, 1873	16,128
Decrease	8,898
Total decrease since Dec. 25, 1872	61,422
Imports of Middlesborough pig-iron into Grangemouth:-	
Week ending April 20, 1872	Tons 700
Week ending April 19, 1873	—
Decrease	700
Total decrease for 1873	1404

A deficiency of ore is being experienced by smelters in several districts; and, in the absence of regular auxiliary supplies, native ironstone is bringing high prices. In these circumstances consumers are only purchasing for short dates and immediate wants, leaving the future for what may turn up. Malleable Iron is in much the same position as last week, both as regards makers and purchasers. A number of the works are next to idle—second hands keeping the market well supplied with ordinary descriptions of bars, purchased at cheap rates, greatly under makers' prices. The parcels in second hands seem numerous, and are pressed on buyers on such terms as effectually exclude makers from competing. Nail-roads have to be ordered from works and odd sizes, and this is all that is being booked direct. The cognate branches of the iron trade are reported quiet. The Coal Trade was moderately busy up till the beginning of the

week, when a strike amongst the fire and brakes men of the mineral department of the Caledonian line brought matters to a standstill, and coalmasters have had to inform their correspondents that, owing to this course, they are unable either to forward their coal to the outports for shipment or to town for consumption. The bays and sidings belonging to collieries served by the Caledonian have thus become blocked by filled wagons, which the company is unable to lift, and the trade has become disorganised. Some of the collieries have also been stopped, and we have been informed that if the strike continues for another week the city of Glasgow will be destitute of both coal and dross for manufacturing purposes. The present attitude of the men is that of firm resistance. Quotations of coal and dross have not been changed, but the tendency of this unfortunate strike will have the effect of enhancing their local value. During the week ended yesterday the shipments from the Scotch ports had reached a total of 42,390 tons, against 39,067 tons in the same week of 1872.

At a mass meeting of the Airdrie miners, held there at the close of last week, went the obnoxious "special rules." Mr. McDonald spoke for about an hour, and stated the chief objections to the proposed changes. He said the masters was that by them the burden of keeping up and maintaining the cost of working places was put upon the workmen instead of the masters, as was contemplated by the Act itself. He advised the men to hold delegate meetings in every district, and appoint delegates to go to London and memorialise Mr. Bruce next week. Let them go prepared to give the views of the men, and to say that unless the rules were altered, and framed according to Act of Parliament, they would refuse to work, and as a body would lift their "graith" throughout Scotland. He spoke next on the subject of co-operation, advising the men to amass money and purchase a colliery, just like the colliery in every district in the hands of the men, and through time they might have the whole of them. Before concluding, Mr. Alex. McDonald advised his auditors "to adhere strictly to the short-time movement, as the price of coal was coming down owing to the market being overstocked, and their wages would come down next." The same sentiments were repeated at a conference of delegates held here yesterday. This is considered singular advice, coming from a man like Mr. McDonald, who, a fortnight ago, told the world—in reply to the charge that the price of fuel had been seriously enhanced by the "shortness of the working collier"—that, owing to "defective railway accommodation, the people of Glasgow had paid during the last two months 2,000,000 more for coal than they ought to have done?" What will the Coal Commission say to evidence like this? Mr. McDonald knows well the connexion between cause and effect, and the nexus which connects "the short-time movement" with the "high price of coal." The control of the market, in Mr. Alex. McDonald's opinion, is "thus in the hands of the colliers themselves, supposing they "adhere strictly" to their secretary's advice; and the story of its being affected by supply and demand, or defective railway accommodation, is all fudge. Scarcity of coal produced the high price, and the same produced the scarcity by limiting the output, and this is the course Mr. McDonald would have us follow. If we do this for four or five days, a week, and eight hours a day, and the diminished supply will renew the famine prices. We hope the eyes of the Coal Commissioners will light on this significant sentence, and grant to its author a patriot's reward.

At a meeting of miners' delegates, held in the Democratic Hall yesterday, Mr. McDonald gave an explanation of the special rules in their application to Scotland, and to the counties of Northumberland and Durham. He stated that he would soon be in London, when he would endeavour to arrange with the Home Secretary to receive a deputation from the various districts in Scotland. At his suggestion the conference unanimously resolved that each district would be asked to send a representative at any time that should be appointed. A discussion followed as to the necessity of restricting the output of coal, so that the miners' wages might be guaranteed against any depression of the market. The districts in Scotland should adopt the eight-hours day on or before May 17, otherwise they will be refused work in organised and short time districts.

**VISIT OF THE DUKE OF SUTHERLAND TO YOUNG'S PARAFFIN OIL WORKS AT ADDIEWELL.**—The Duke of Sutherland, Admiral Lord John Hay, and a large party, visited Young's Paraffin Oil Works, at Addiewell, on Saturday, 10th inst. His Grace was met by the directors of the company, who accompanied him through the works, and gave him every information as to the various processes carried on there. We believe that the object of the visit of his Grace was to obtain information as to how to utilise the shale on his Sutherlandshire estates, with the view of producing a patent fuel as a substitute for coal. Should his Grace be enabled to carry out his object, it will be a great boon that will be conferred on the working population in the North will be very great, more especially in present circumstances, when the price of coal is so high.

**GARTCRAIG COAL AND FIRE-CLAY COMPANY.**—At a meeting held at the office of the company it was resolved to pay the shareholders an interim dividend of 7½ per cent. for the six months during which the company has been in existence.

**ECONOMY OF FUEL.**—A great improvement in the manufacture of gas for illuminating purposes, and of oil from shale and other bituminous substances, is being carried out in the oil works of Messrs. Taylor and Co., Leith, in their works at Straiton, near Loanhead, and is expected to prove of very great importance in economising fuel, and in improving the results of the destructive distillation of coal, shale, &c. We have been favoured with a view of the apparatus, which is patented by Messrs. Young and Stephens of the above mentioned firm; it consists of a stack of four vertical retorts, so built into a square brickwork chamber that they are entirely surrounded for their whole height by flues. The retorts have an oval section, and are slightly conical; they are fitted with a hopper mouth at the top, which can be closed effectually after the charge of shale has been introduced, and near the bottom is the pipe through which the gaseous matters when generated pass to the condensers, the draught outwards being most facilitated by a jet of steam introduced for the purpose. As in the case of the retorts we saw at work the object was oil distillation, the gas from the retorts was passed through the condensers to eliminate that material, whilst the uncondensable inflammable gases were brought back again and passed in below the retorts, where there is an arrangement consisting of a combustion chamber opening into the flues: here the spent shale of a previous charge receives through it the inflammable gases which, in addition to the fixed carbon contained in the spent shale, produces such active combustion below and heat around the retorts, that the distillation is carried on with the most satisfactory results. When the operation is commenced (say) on Monday morning, a charge of shale is put into the retorts, and the gas is allowed to pass through them after that has acted upon the first charge, and it has been allowed to fall into the combustion chamber, it goes on without intermission until purposely stopped. By this ingenious process we may say that coal is entirely dispensed with, except the very small quantity required to light the fire at first; and as about a fifth of a ton of coal is, by the ordinary process, required to distil a ton of shale, it follows that the many thousand tons of shale distilled weekly in this district must require an enormous consumption of coal. This may now be saved, and every manufacturer is sure to resort to it; and, besides the economy in the price of the gas, a considerable saving in the quantity in fuel, and quality of the oil and paraffin obtained. The application of the system to the improved manufacture of illuminating gas is not so obvious, but the inventors speak with great confidence upon this point. We, however, have not seen it in operation for that purpose.

**April 24.**—The South Staffordshire Iron Trade continues pretty much as last described alike in the pig and finished iron departments. Business is steady, though not by any means brisk, orders being withheld, in many instances, owing to the high quotations. Pig-iron remains on the basis of *£l. 5s.* to *£l. 10s.* for best brands of native all-mine, at which rates the leading makers have accepted contracts which will absorb their produce for the current quarter. The aggregate yield of all-mine iron is, however, comparatively small, owing to the rapid exhaustion of the ironstone mines in the district. The price of hematite ore being almost prohibitory, South Staffordshire is principally dependent for its supplies of raw material on the ironstones of North Staffordshire and the colities of Northamptonshire. Cinder-pig is not in so much request as recently reported, but the demand is well sustained for mine-pig mixed with a modicum of flue cinder. Stocks of pig-iron throughout the district are low, and the aggregate production is not by any means adequate to the local requirements. There does not seem much prospect of an early increase in the yield, although out of 163 furnaces in the district not more than 94 are in blast. The great cost of fuel and ore, together with the state of the labour market, discourages enterprise in this direction. The price of finished iron remains on the basis of 14*l.*, 15*l.*, and 16*l.* per ton respectively for common, medium, and best bars. Sheets are at 19*l.* for common and 22*l.* for best singles, with the usual extras for doubles and lattens. Charcoal-iron is firm at the advance of 3*l.* on bars and 5*l.* on sheets, announced a few days since by Messrs. Bradley and Co. (Mr. W. Orme Foster), of Stourbridge. Strips are in request for local manufacturing purposes, the tube makers and locksmiths being prominent customers. The demand for hoops, rods, and angles is quieter, orders being for the most part restricted to actual requirements of consumers. The iron merchants in Birmingham and the district are ordering very sparingly.

The Coal Trade of South Staffordshire is in steadily sustained activity, although, perhaps, the demand is less buoyant than described last week. Prices remain on the basis of 17*s.* 6*d.*, 19*s.*, and 22*s.* per ton for Cannock Chase coal, with proportionate rates for the Thick coal of the Dudley district. Messrs. Dixon, Amphlett, and Co., of Tipton, encouraged by the present condition of the coal trade, are reopening on the Shrubbery estate a number of collieries which have been closed for more than 30 years. The Sandwell Park trial sinking is making steady progress, and it is estimated that if coal exists there at all it will be reached within 100 yards of the present level. The share list of the Cannock and Huntington Colliery Company closes on Saturday (to-day). The applications up to Wednesday were considerably in excess of the number to be allotted.

**Dr. Hill, of Birmingham (borough analyst), has been lecturing this**

## GOLD MINES.

work to be written on the philosophy of finance what incongruities would be exhibited. Finance would be shown to have its wars, its alliances, its broken compacts, and even its followers, and how there were periods of enthusiasm as well as of panic. The course of action in finance it would be proved to be very similar to that of all history in civilised communities, and to be very want of logic, and the same conclusions without reasons, to be evidenced in both. It is curious to observe how at certain times men enter upon a movement which even occasion does not seem to create. At this instant we have Mr. Plimsoll and the sea-union with all his alleged wrongs before us. The old sailor is agitating us immensely, though for centuries he has been not as a martyr, and supposed to form the vital element in the population of this maritime state. In the world of finance we have perfect commotion through the issuing of railway and other bonds, and though why these especial projects have at this moment risen to such extreme popularity no one can say. Certainly, these forms of investment are very good, but they invited public encouragement long ago as much as they do now, and it is singular that similar undertakings were not brought into existence long before this. The fact is, however, we watch the questions of finance the more obvious and that certain investments come into fashion while others are discarded. There must be a rage for certain new companies as there is for new bonnets and new coats. All must have their turn. Upon a time the world made investments in mining the fashion; and in minerals, fortunately, no longer exists. People wore in their arms representing bad ventures nearly to as great an extent as good, and it has come to pass that mining for the time is looked upon with the old favour. Still the metals lie buried in the earth and must be extracted. They are nearly as necessary to us as our daily bread.

An illustration of our remarks let us take the question of gold mining which represent a phase of the mining market generally. Within the recollection of everyone how there was a great development of gold mining enterprises. Several companies came into the public readily invested. One or two companies of this kind have not been all that anticipated, and the carping "bear" of the day exclaims, Why risk your money in these kinds of projects? But the answer must exist to guide us as well as to warn. We deplore manias because in the end is reaction, for reaction means the avoidance of good undertakings and the stoppage of legitimate channels for investment. Let us take a glance at the first-class gold mining companies. The shares in the St. John del Rey Mine, with 17l. 10s. per share, are quoted at 32l., and total dividends have been paid on the amounting to 71l. 10s. per share. The Don Pedro del Rey, with 10l. per share, have given dividends thereon to the total of 191l. The shares in the Port Phillip Company have yielded dividends of 1l. 7s.; and two recently established companies, the Santa Cruz and Santa Cruz 4l. shares have given total returns of 1l. 14s., while Santa Cruz 2l. paid, quoted at 3l. 10s. per share, has declared dividends of 14s. These are facts, and they afford proofs that in mining there are great prizes which are always available to the prudent investor.

work with considerable satisfaction that the explorations at these  
are still actively pursued, and the resident manager entertains  
the expectations that valuable discoveries may result from the  
progress. The Taylor tunnel is rapidly advancing towards  
perpendicularly under the Troy Mine, which has been one of  
most productive on the hill, and from this mine good returns of  
ore are still extracted weekly.  
The establishment has been much reduced, and the works, we hear,  
are carried on with perfect order and regularity. Many persons ac-  
quainted with the district are very confident that some rich deposits  
of ore will be found in the deeper strata.

IN AMERICA.—Little by little we are coming to have at least an approximately definite idea of the vast treasures of coal beneath the soil of the United States. In a paper contributed to the "Geological Magazine," Mr. C. H. Hitchcock, of New Hampshire, has attempted to determine the precise areas occupied by the beds of carboniferous coal in the States by bringing together from the best authorities whatever is known on this subject. In this paper, in which the writer describes with some detail the distinct coal areas of the United States, we tabulate the following particulars:—

	Area. Square miles.	Number of beds.	Thickness of measures. Feet.
New England Basin.....	700	23	2500 Feet.
Pennsylvania anthracite.....	434	2 to 25	3000 to 3000
Alleghenia Basin:			
Pennsylvania section.....	12,222	—	825 to 2635
Maryland section.....	550	32	1500
West Virginia section.....	18,000	24	1250
Ohio section.....	10,000	10	1800
East Kentucky section.....	10,000	—	—
Tennessee and Ala.....	14,100	7	578
Michigan Basin.....	6,700	—	123
Indiana section.....	41,500	10	600 to 2500
West Kentucky.....	6,500	13	650
West Kentucky.....	3,700	11	612
Illinois Basin.....	100,000	—	—
North Carolina.....	5,500	—	—

The eighth coal area, which covers the region of the Rocky Mountains, is little known. In Arizona and elsewhere coal has been found, but no estimate of its extent or value can yet be formed. The total area of the basins of which any estimate has been attempted amounts to upwards of 230,000 square miles.

from the United Kingdom in March amounted to 18,854 tons, compared with 15,446 tons in March, 1872, and 15,357 tons in 1871. In the three months ending March 31 this year the aggregate exports were 50,459 tons, as compared with 43,469 tons in the corresponding period of 1872, and 30,378 tons in the corresponding period of 1871. The export of hoops, sheets, and plates to



week to the North Staffordshire Institute of Mining Engineers. "On the Chemistry of the Mine." The lecture, which was delivered in the Stoke Town Hall, was the second of a series. The first was devoted principally to a consideration of the atmosphere as the medium in which combustible bodies burn. In the lecture under notice Dr. Hill addressed himself to the study of the elements which have the power of burning at that medium carbon, hydrogen, and sulphur. An intimation was given that in the next lecture the subject of fire-damp would be dealt with.

Mr. Samuel Taylor (Snowhill Zinc Works, Birmingham) is the inventor and patentee of a new method of affixing metal roofing. He dispenses altogether with external fastenings, and by an arrangement of slots on the rafters and sliding grooves in the roof itself, the invention secures extra durability, improved appearance, and simplicity of fixing, qualities which are sure to command the success it so well deserves.

The Iron Trade in North Staffordshire is decidedly below the average for the season in point of activity. A great falling off is experienced with regard to the United States' demand. Pig-iron for local consumption ranges from 6/5s. to 6/10s. per ton, and the rates, including delivery in South Staffordshire, are 6/10s. to 7/1. Ironstone is firm at the quotation of 22s., loaded into boats. The coal trade in this district is somewhat quieter, and quotations are 2s. to 4s. per ton lower than we were able to report a little while ago.

#### TRADE OF THE TYNE AND WEAR.

April 23.—A good deal of time was lost by the miners in keeping holiday during last week, which reduced the output of Coals to some extent, but coals are certainly more plentiful than they have been for some time. At many of the works in Durham some stocks were held previous to the holidays, but, of course, the shipments have been on a large scale lately, and these stocks have been in some cases cleared away. However, coals are more plentiful, that is an undoubted fact, and the output is likely to be largely increased as time progresses, many new workings and extensions of old mines being in progress; and there is no deficiency in the supply of men, the high wages now earned by miners are evidently capable of attracting a large additional number of men to engage in the business. On account of increased supplies prices of coal have fallen in South Durham to some extent. Best coals are still quoted at 20s. per ton, and inferior sorts are some of them as low as 16s. per ton. The demand for coke has not relaxed much, and prices are still high; indeed, contracts have been made lately, to extend for one year, at 45s. per ton. It must not, however, be supposed that these rates for coke afford any means of arriving at the true profits made by coalowners, as many of them have still extensive contracts running at prices as low, some of them, as 13s. and even 11s. per ton. Of course, ironmasters who have large contracts for the supply of coke at such small amounts can well afford to pay high rates for certain quantities.

New workings for coal are in progress at many points, and others are projected. Of some of the most remarkable we shall give some account. The new winning at Anwell Park still progresses favourably, and some good seams have been already met with. This is the more remarkable as so many previous trials in that locality have proved failures. A very extensive new winning for coal is in active progress at Chilton, near Ferry Hill; three large shafts are being sunk, and a depth of 75 fms. has been reached, but the distance down to the main seam of coal is 400 yards. The coal seams have proved most excellent in this locality, as has been amply proved by the working of the Eldon Colliery, and also by borings. The Eldon Colliery is now one of the most remarkable works of the kind in South Durham. Although only a short time has elapsed since it was opened out the seams worked are of excellent quality and good section, and a very large quantity of coal is raised per day, the winding-engine being of first-class construction and large size. The ventilation here is by furnace, but it is, perhaps, the largest ventilation yet produced by means of the furnace.

The Guibal Fan continues to make rapid progress in this district, and we have been favoured with an account of some experiments lately made at the Branlon Colliery, near Auckland, with one of these ventilating fans. The diameter is 36 ft., and width 12 ft., and the maximum speed attained during the experiments was 42 revolutions per minute, and the quantity of air produced by the fan when running at that velocity was 201,871 cubic feet per minute; certainly a very large quantity, and the horse-power this amounts to is equal to 60 horses, the water gauge being 1'60. It is worthy of notice that the volume of air previously obtained by the furnace was 149,000 cubic feet per minute under similar circumstances.

#### REPORT FROM DERBYSHIRE AND YORKSHIRE.

April 24.—There has been scarcely any change with regard to lead mining since last report; but there is still every evidence that some considerable progress is being made in the development of several properties in Eyan and other parts of the county. The Peak Forest is looking well, and the shares are in request at fully 5 prem. In the Hockworth district a good deal of ore is being raised, as well as at Wessop, Hucklow, and in the neighbourhood of Cromford, the Messrs Bass raising by far the largest quantity, which, indeed, they deserve to do, seeing that they are the most enterprising persons engaged in the trade. Still the yield of ore, we think, is far below what it ought to be, considering the high price at which lead now is, causing mining to be far more profitable than for very many years. Capital and enterprise, however, are just now more devoted to the working of coal than to almost anything else, owing to the extraordinary price at which that most essential article has advanced during the past twelve months, and causing it to be a luxury in many a small household where it was formerly little thought about. Others that little more than a year ago would have led the makers of them to be looked upon as all but lunatics have of late been made for going collieries, and we know more than one instance where truly fabulous sums have been given for concerns which before the recent rise were able to do little more than pay expenses. Now, of course, they pay very well, but in the event of any great fall taking place in prices, which is more likely than otherwise, then the percentage on the capital invested would be small indeed. Vendors, however, have done well, and those now in possession will evidently, before long have a not over easy time of it, seeing that from the great number of collieries now being opened out, not only in Derbyshire but in all the mining districts in the kingdom, the output of coal promises to be greater than the consumption. Still, the collieries in Derbyshire are now doing a very fair trade, there being a seasonable demand for household qualities, although, as might be expected, prices are not so good as they were. From Clay Cross about an average tonnage is being sent to the metropolis, as there is also from Langley Mill, Eckington, and Colnor Park. Steam coal is getting into very brisk request indeed, and the season for that description of fuel promises to be a very good one. The ironworks at Staveley are doing an excellent business in pipes and other castings, and we notice that the shares recently have already reached a very high premium, a proof of the estimation in which the vast concern is held by the public, although the ordinary are scarcely ever sent into the market. Dronfield is becoming a very active state. Although good and fairly remunerative prices are now obtainable, still it is quite uncertain how

#### REPORT FROM MONMOUTH AND SOUTH WALES.

April 23.—There is this week, perhaps, a greater degree of activity to be witnessed at the iron making establishments than has been the case at all before since the great strike terminated. The result is that the iron exports are gradually increasing, and will shortly be something like equal to the large quantities usually manufactured. During the past week the Aberdare Iron Company have dispatched 1500 tons of rail to San Francisco, 329 tons rail to Holbeck, and 290 tons rail to Copenhagen; the Nantyglo and Blaenau Company, 650 tons rail to Constantinople, 900 tons rail to Pillau; the Llandore Steel Company, 1335 tons steel rails to Cronstadt, and 783 tons steel rails to New York; the Blaenavon Iron Company, 830 tons rail to Pillau; the Rhymney Iron Company, 304 tons rail to Valencia; F. P. Carrel, 24 tons pig to Dunkirk; Barnes, Guthrie, and Co., 275 tons to Bilbao; and Booker and Co., 136 tons sheet to Amsterdam.

As to the demand for finished iron reports are favourable from all parts of the district. Buyers evince more and more anxiety to place orders without further delay, and makers are quite alive to the necessity of entering into transactions, seeing that four months of the year have now elapsed and hardly one month's manufacture has been turned out. But it is impossible that they can treat freely with their customers while the labour market is in such an unsettled state. Although good and fairly remunerative prices are now obtainable, still it is quite uncertain how

long they will remain so if the cost of good materials and labour continue to go up. The trade must, therefore, remain in an unsatisfactory condition, notwithstanding that there appears to be such a show of prosperity. It has been usual for the makers of this district to cut out their work for at least three or six months ahead; and, owing to the peculiarities of the Welsh trade, it is necessary that they should always have a hand to hand trade, can be safely carried on. Such a state of things is entirely unsuitable to the district, and while it continues the ironworks cannot be kept going to the benefit of the proprietors. For this reason the extensive contracts on account of the United States and the colonies, which usually come to hand about this time of year, do not find their way to makers' books so readily as might have been expected. If, however, manufacturers could place more confidence in their workmen the prospects of the trade would be particularly encouraging. There is no doubt but large quantities of railway iron, &c., will be in request for a long time to come, and bars and plates will also be in demand. There are, so far, good supplies of ores and pig in the district. Steady working characterises the Tin-plate making establishments, and little or no change either way is likely to take place for a time.

The demand for Coal can hardly be reported so brisk as for some weeks past, and there are some who prognosticate a change for the worse in this branch of trade. For some time past it has been fore-shadowed that once a change took place the downward movement would be rapid, and a period of depression would again set in. It is somewhat consoling to find that those most interested have not yet thought proper to take such a gloomy view, and all things considered, indeed there is little reason yet for their doing so. They have yet no room to complain of a want of customers, and prices are still firm, steam coal averaging from 22s. to 24s. per ton. The men, too, are working regularly, and are evidently bent upon following their leaders' advice to "Make hay while the sun shines." It is not surprising that there should be a falling off in the enquiry for house coals, the time of year having arrived now when buyers begin to lessen their purchases, but I have not discovered that stocks are large at any of the markets. The supplies of both steam and house coals for shipping have decreased, owing to the fact that a considerable number of men who were employed in these pits during the late strike have now returned to their working places in the ironworks collieries.

**THE PARLIAMENTARY COMMITTEE ON COAL.**—The Committee re-assembled yesterday, after the Easter recess; present, Messrs. Ayrton (Chairman), Cowance, Carter, Elliot, Griever, Pim, Stanhope, and W. H. Smith. The remaining Government Inspectors—Messrs. Alexander (western division of Scotland) and Ralph Moore (eastern division of Scotland)—were examined. The evidence of the Mining Inspectors being concluded, the first witness (not official) was Mr. Hewlett, managing director of the Wigan Iron and Coal Company, whose mines are situated in the districts of Mr. Higson and Mr. Dickinson, whose evidence he generally confirmed. He, however, strongly objected to the allegations of the latter gentleman, as to the improper working of the mines in times of high prices, which would lead to "a fearful day of reckoning." He was surprised, not to say indignant, at that statement. There was no undue waste or neglect of dead work, on the contrary, when prices were good owners could afford to do more than ordinary dead work. Neither was safety neglected. The long wall system was the safest in existence, and this company were adopting it as fast as they could. In this year the output was less than the average. The Committee adjourned until Monday.

**NORTH TRELEIGH WOOD.**—This mine continues to attract considerable attention; the operations are approaching an important point, and one likely to beneficially affect the future of the mine—the deep adit level coming under the winze, at the bottom of which very rich stones of tin were found in the lode, indicating a rich deposit of ore at a shallow depth. The copper department fully maintains its former reported value.

**ST. AUSTELL AND ROCHE.**—Several hundred tons of hematite iron ores have been brought to surface on the Hallow Mine, the lode being about 14 feet wide. About 120 tons, raised from the Magnetite Iron Mine, sold last week, realised 25s. per ton. Cornubia is drained to the 40 fm. level, and it is expected by midsummer the bottom of this mine will be reached, and returns of tin made.

**MR. THOMAS THOMPSON, JUN., 1, PALMERSTON BUILDINGS, BISHOPSGATE STREET, LONDON, E.C.** Some valuable hints as to the purchase of mining shares will be found in Mr. Thompson's "Investment Circular" for April, now ready, post free, price 6d.

**MESSRS. T. BENNETT AND CO., SHAREDEALERS, CLAREMONT STREET, SHREWSBURY, HAVE FOR SALE THE FOLLOWING SHARES at prices affixed:—**

BRITISH.		
30 Bog, 37s. 6d.	60 Old Batholow, 41½.	25 Van Conso, 26½.
50 Central Van, 37s.	65 Perkins Beach, 12s.	20 West Tankerville, 24
100 Cwm Elan, 4s. 6d.	20 Pennerly, 42½.	5 Tankerville, 41½.
20 East Van, 4s.	40 South Roman, 39s.	5 Van, 41s.
25 North Tankerville, 17s.	50 Tylly, 27s. 6d.	10 Roman Grav., 200½ x d
		FOR IRON.
40 Emma, 27.	100 Gold Run, 10s.	25 Sweetland, 44½.
50 Flagstaff, 41½.	20 Richmond, 21.	

Every description of stock and share dealt in. Advices on marketable shares.

**JOHN B. REYNOLDS, STOCK AND SHARE DEALER, 75 AND 77, BISHOPSGATE STREET WITHIN, LONDON, E.C.** Is able to obtain reliable information concerning British and Foreign Mines. The long experience he has had is at the service of the public.

**MR. J. GREGORY, STOCK AND SHARE DEALER, CROSBY HALL CHAMBERS, BISHOPSGATE STREET, E.C.**

**MR. W. S. TIPSON, GREGIAN CHAMBERS, DEVEREUX COURT, TEMPLE BAR, W.C., FINANCIAL AGENT,** executes negotiations for the sale of every description of marketable shares, and advances made pending sale of the same.

To cover recent advances, FOR SALE:—14 Curzoll; 3 Cook's Kitchen; 2 Dol court; 25 East Curzoll; 20 M. Valley; 7 Provinces; 25 South Curzoll; 12 Truist; Conso; 2 West Seton; 6 Margaret; 100 East Seton; 20 East Van; 20 Greenlough; 100 Parys Mountain; 100 Perkins Beach; 50 South Great Works; 3 South Frances; 100 West Gogin; 2 Wheel Buller; 100 Don Pedro; 12 Flagstaff; 100 Gold Run; 32 East Curzoll; 100 Thornhill Reef.

**MR. W. L. WILLIAM WARD, (Late Ward and Littlewood), CROSBY HOUSE, 95, BISHOPSGATE STREET WITHIN, E.C., DEALS IN ALL KINDS OF STOCKS AND SHARES, for cash or the account.**

**SILK AND CO., STOCK AND SHARE BROKERS, 32, REGENT STREET, PICCADILLY, LONDON W.** BUSINESS IN THE FOLLOWING SHARES:—

South Condlow.	East Roscaswell.	Van Conso.
West Maria.	Great Lacey.	Bronfloy.
Silkestone Fall Colliery.	Aberdun.	Birdseye.
St. Agnes Colliery.	Penruth.	Castle-an-Dinas.
Gooninnis.	Pacific.	New Rosario.

**FOR IMMEDIATE PURCHASE, we recommend:—**

Wheel Whisper.	Aberdun.	Brynn.
South Phoenix.	Wood Close and Pol.	Bumpfild.
West Van.	gooth.	Bousaville Downs.

We are prepared to deal in all Stocks and Shares at their market value for cash. FRANK LIMMER, Secretary.

**MR. T. R. COMYN, STOCK AND SHARE DEALER, 31, THREADNEEDLE STREET, LONDON, E.C.** Bankers: National Provincial Bank of England.

**NEW DOLOCOATH.**—The production of copper from this mine is rapidly increasing, the ore actually in sight being worth several thousand pounds, and the sales fully cover the whole cost, independent of the tin.

**EXETER.**—Mr. Nicholas Ennor inspected this mine a few days since, and says it is the very best set he has seen in the county of Cornwall.

Both of the above mines will soon be in the Dividend List, and the shares should be bought at their present low price, for they will assuredly have a rapid rise.

**VAN CONSO.**—Mr. Comyn has received instructions to PURCHASE ONE THOUSAND SHARES. Sellers will please state number and lowest price.

**MESSRS. CAMERON AND CO., FINANCIAL AGENTS AND SHARE BROKERS, BRIDGE STREET CHAMBERS, CHESTER.**

**MR. R. PERCY ROBERTS, FINANCIAL AGENT, 60, ENGLISH STREET, CARLISLE**

LEAD ORES.			
Date.	Mines.	Tons.	Price per ton.

April 12—East Llangynog	35	£15 5 0	Nevill, Druce, & Co.
13—Llanerchyrour	20	17 3 6	Adam Eytan.
21—Dyffell	10	15 6 0	Walker, Parker, & Co.
18—Green Hirth	50	15 2 6	Shild and Dinning.
24—Eggar Hir	35	14 3 0	Nevill, Druce, & Co.
—ditto	7½	14 4 0	ditto
—ditto	7½	14 4 0	Walker, Parker, & Co.
—Bog	25	16 6 0	Glover and Robinson.
—Pennerly	75	16 4 6	Burry Pore Company.
—Ally-Crib	25	15 8 0	Sheldon, Bush, and Co.

BLENDE.			
Date.	Mines.	Tons.	Price per ton.

April 21—Talarogoch	70	£4 16 6	Richardson and Co.
—ditto	70	3 15 0	Tindale Company.
—Great Lacey	300	4 5 0	Dillwyn and Co.
—Bog	60	5 10 6	ditto

BLACK TIN.			
Date.	Mines.	Tons c. q. lb.	Price per ton.

April 16—Wheel Cny	10	16 10 10	£26 13 4
—Wheel Killy	11	13 15 15	29 0 0
19—Green Hill	10	8 1 24	23 10 0
23—Great Vor	22	0 0 1	1820 2 0

#### Coal Mines Regulation Act, 1872.

**EXAMINATION FOR MANAGERS' CERTIFICATES OF COMPETENCE.** DISTRICT UNDER THE CHARGE OF **GEORGE WILLIAM SOUTHERN, ESQ., HER MAJESTY'S INSPECTOR OF MINES.** NOTICE IS HEREBY GIVEN, that CANDIDATES intending to PRESENT THEMSELVES at the approaching EXAMINATION in the District of NORTHUMBERLAND and the Northern Division of DEWA, must, on or before the 17th day of May next, notify such intention to the Secretary of the Board of the above-mentioned District, THOMAS DONALD FORREST, Clerk's Office, Town Hall, Newcastle-on-Tyne, from whom all information as to particulars can be obtained. By order of the Board, (Signed) THOS. D. FORREST, Secretary.

#### Coal Mines Regulation Act, 1872.

**EXAMINATION FOR MANAGERS' CERTIFICATE OF COMPETENCE.** DISTRICT UNDER THE CHARGE OF **WILLIAM SOUTHERN, ESQ., HER MAJESTY'S INSPECTOR OF MINES.** NOTICE IS HEREBY GIVEN, that CANDIDATES intending to PRESENT THEMSELVES at the approaching EXAMINATION in the District of CUMBERLAND must, on or before the 18th day of May next, notify such intention to the Secretary of the Board of the above-mentioned District, THOMAS DONALD FORREST, Clerk's Office, Town Hall, Newcastle-on-Tyne, from whom all information as to particulars can be obtained. By order of the Board, (Signed) THOS. D. FORREST, Secretary.

#### Coal Mines Regulation Act, 1872.

**DISTRICT UNDER THE CHARGE OF F. N. WARDELL, ESQ., HER MAJESTY'S INSPECTOR OF MINES.** NOTICE IS HEREBY GIVEN, that CANDIDATES intending to PRESENT THEMSELVES at the approaching EXAMINATION in the District of NORTHUMBERLAND and the Northern Division of DEWA, must, on or before the 17th day of May next, notify such intention to the Secretary of the Board of the above-mentioned District, JOHN R. JEFFERY, Esq., Clerk's Office, Town Hall, Newcastle-on-Tyne, from whom all information as to particulars can be obtained. By order of the Board, (Signed) JOHN R. JEFFERY, Secretary.

#### Coal Mines Regulation Act, 1872.

**EXAMINATION FOR MANAGERS' CERTIFICATES OF COMPETENCE.** DISTRICT UNDER THE CHARGE OF **LIONEL BROUGH, ESQ., HER MAJESTY'S INSPECTOR OF MINES.** NOTICE IS HEREBY GIVEN, that CANDIDATES intending to PRESENT THEMSELVES at the approaching EXAMINATION in the District of the above-mentioned District, J. T. THOMAS, Esq., Clerk of the Board, Abiloch-chambers, Bristol, from whom all information as to particulars can be obtained. By order of the Board, (Signed) J. T. THOMAS, Secretary.

#### Certificates of Service UNDER THE COAL MINES REGULATION ACT, 1872.

35 AND 36 VICT. C. 76.

In cases of Mines where there is now no single person responsible for the management of the whole Mine both above and below ground, the person has been responsible for such Mine below ground may receive a Certificate of Service if he has served the requisite period prescribed by the Act, provided that he undertakes to appoint him Manager of the Mine, when he will become, under the Act, he responsible for the whole Mine both above and below ground.

Any person desirous of obtaining a Certificate of Service, and who can be the Inspector that he is eligible under the above modified regulation, should apply to the Secretary of State in the manner pointed out in the enclosed which have been given with respect to applications for Certificates of Service, closing a Post Office Order for the fee of Five Shillings in favour of F. N. Wardell, Esq., Chief Clerk, Home Office, made payable at the General Post Office, London. Home Office, 9th April, 1872.

#### MINING IN AMERICA.

**MR. JOHN VAN CLEVE PHILLIPS, GEOLOGIST IN AMERICA.** M.E., will give special attention to SELECTING AND REPORTING ON COAL, IRON, LEAD, ZINC, and other MINERAL PROPERTIES in PENNSYLVANIA, ILLINOIS, IOWA, and MO.

#### WANTED—AGENCIES FOR AMERICA.

**A PRACTICAL MECHANICAL ENGINEER,** who has an extensive connection among the Engineers, Cotton Machinery Builders, Millwrights, and others, proposes to visit America, on his next business tour, early in June, and is prepared to undertake the INTRODUCTION OF BUSINESS connected with METALS and MINERALS in general, and also to UNDERTAKE the NEGOTIATION OF PAISLEY. Address, "A. H." care of W. Lewis Wilson, Esq., C.E., Chancery Chambers, Buckingham Street, A. H. Phillips, W.C.

#### MINING IN COLORADO.

**PARTIES wishing to INVEST in GOOD MINING PROPERTIES** would do well to CONSULT with **MR. DANIEL ROBERTS,** Georgetown, Clear Creek County, Colorado Territory, America.

#### REDUCTION OF POOR COPPER ORES BY THARNS "HENDERSON'S" PROCESS.

**A MANUFACTURING CHEMIST** desires a RE-ENGAGEMENT as MANAGER. Thoroughly experienced in all the manipulations of the construction of furnaces, erection of plant, &c., in connection therewith. Address, "Chemist," MINING JOURNAL Office, 26, Fleet Street, London.

#### CLEE HILL COLLIERY, NEAR LUDLOW, SALOP.

**WANTED.—TWO or THREE BOILERS** at the above Colliery. Either new or good secondhand. Warranted to 50 lbs. pressure. 25 to 30 feet long, from 4 to 6 ft. in diameter. Likewise, THREE WEIGHING MACHINES, to weigh 1 ton. Also, a FEW TONS of BRIDGE RAILS, 14 to 15 lbs. per yard. WM. BERTHAM, Manager for the Colliery.

#### WANTED, A GOOD BLACKSMITH, for the GRASSING LEAD MINES, near SKIPTON, YORKSHIRE; also, a GOOD CASHIER.

**PENTER, for the BURLINGTON SLATE WORKS, near CLIVERSTONE, CASHIRE.** Apply, with testimonials as to character and ability, and stating amount of wages required, to Mr. Eddy, Skipton.

#### WANTED, COUNTRY AGENCIES.—A CITY FIRM IS OFFER TO TRANSACT, as Agents in London, the BUSINESS of FIRST CLASS MANUFACTURING FIRMS in the COUNTRY in connection with the IRON, and METAL TRADES, &c.

Address, "Iron," at Mr. Barnard Morris, Advertising Agent, 43, Ludgate Hill, London, E.C.

#### WANTED TO PURCHASE, a 12-in. to 16-in. HORIZONTAL ENGINE, and a PAIR of 20 in. to 24-in. ditto, with BOILERS complete and adapted for colliery winding purposes. New or good secondhand. for engines without boilers, and boilers alone, also required.

Address, THOMAS HARRIES and Co., Anthracite Collieries, Penrhy, R.S.O. Carmarthenshire.

#### WANTED, A COMPLETE SET OF ROLLERS, for ROLLING LEAD SHEETS, not wider than about 9 feet 10 inches to 10 feet, and STEAM ENGINE, 20-horse power, nominal, with TRIGGER and CONDENSER BOILER, and everything connected with it complete.

The delivery may be effected free on board, either at London, Liverpool, or castle, Glasgow, Antwerp, or at Genoa. Address, with full particulars, to A. CENTURINI, Esq., Genoa.

#### ECONOMY IN RAISING WATER.—THE INVENTOR OF A PUMP, of entire novel form, and very economic in action, DESIRES FIND A CAPITALIST willing to assist him in obtaining the necessary patent and developing the invention. Liberal arrangements will be entered into with the inventors' rights being protected by the securing of provisional protection.

Address, "Mechanic," MINING JOURNAL Office, 26, Fleet Street, E.C.

#### RAILWAY CARRIAGE COMPANY (LIMITED).

ESTABLISHED 1847. **OLDBURY WORKS, NEAR BIRMINGHAM.** MANUFACTURERS OF RAILWAY CARRIAGES AND WAGONS, and DESCRIPTION OF IRONWORK.

Passenger carriages and wagons built, either for cash or for payment over a period of years. RAILWAY WAGONS FOR HIRE.

**CHIEF OFFICES, OLDBURY WORKS, NEAR BIRMINGHAM.** LONDON OFFICES, 7, GREAT WINCHESTER STREET BUILDINGS.

#### THE BIRMINGHAM WAGON COMPANY (LIMITED).

MANUFACTURE RAILWAY WAGONS OF EVERY DESCRIPTION. HIRE AND SALE, by immediate or deferred payments. They have also wagons for hire capable of carrying 6, 8, and 10 tons, part of which are constructed specially for shipping purposes. Wagons in working order maintained by the company. EDWARD FOWLER, Manager.

\* Loans received on Debenture; particulars on application.

#### MESSRS. LISCOMBE AND CO.

29, SOUTH CASTLE STREET, LIVERPOOL. Beg to inform their CLIENTS and the PUBLIC that they are PREPARED to BUSINESS IN ALL CLASSES OF MINING SHAFTS—English, Foreign, and Colonial—at the lowest market prices.



**L** FOR SALE in SHROPSHIRE or YORKSHIRE, with productive lodes in paying quantities, WILL FIND A BUYER upon application to—  
MESSRS. HARRISON AND CO., 32, FLEET STREET, LONDON, E.C.



**BICKFORD'S PATENT**  
FOR CONVEYING  
CHARGE IN  
SAFETY FUSE,  
FIRE TO THE  
BLASTING ROCKS, &c.

Obtained the PRIZE MEDALS at the "ROYAL EXHIBITION" of 1851; at the "INTERNATIONAL EXHIBITION" of 1852, in London; at the "IMPERIAL EXPOSITION," held in Paris, in 1855; at the "INTERNATIONAL EXHIBITION," in Dublin, 1865; at the "UNIVERSAL EXPOSITION," in Paris, 1867 and at the "GREAT INDUSTRIAL EXHIBITION," at Altona, in 1869.



**BICKFORD, SMITH, AND CO.,**  
of TUCKINGMILL, CORNWALL, MANUFACTURERS AND ORIGINAL PATENTEES OF SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—  
EVERY COIL of FUSE MANUFACTURED by them has TWO SEPARATE THREADS PASSING THROUGH the COLUMN of GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM TWO SUCH SEPARATE THREADS as THEIR TRADE MARK.

For Excellence  
and Practical Success  
of Engines



Represented by  
Model exhibited by  
this Firm.

**HARVEY AND CO.,**  
ENGINEERS AND GENERAL MERCHANTS,  
HAYLE, CORNWALL,  
HAYLE FOUNDRY WHARF, NINE ELMS, LONDON,  
AND 115, GRESHAM HOUSE, E.C.  
MANUFACTURERS OF

PUMPING and other LAND ENGINES and MARINE STEAM ENGINES the largest kind in use, SUGAR MACHINERY, MILLWORK, MINING MACHINERY, and MACHINERY IN GENERAL.  
SHIPBUILDERS IN WOOD AND IRON.

**SECONDHAND MINING MACHINERY FOR SALE,**  
IN FIRST-RATE CONDITION, AT MODERATE PRICES.  
PUMPING ENGINES; WINDING ENGINES; STAMPING ENGINES STEAM CAPSTANS; and CRUSHERS of various sizes. BOILERS, PIT WORK of all descriptions, and all kinds of MATERIALS required for MINING PURPOSES.

**THE PATENT PNEUMATIC STAMPS**  
May be SEEN AT WORK at HAYLE FOUNDRY WHARF, NINE ELMS, by previous application at either of the above addresses.

**CAPTAIN TREGAY'S**

**IMPROVED PATENT STAMP COFFER,**  
FOR STAMPING GOLD QUARTZ, TIN, AND OTHER ORES.  
The gateway is extended, discharge loudly increased, and power economised.

May be inspected in full work, on application to Captain TREGAY, Redruth, Cornwall, who is PREPARED TO TREAT for GRANTING LICENSES for its use, or to SUPPLY the MACHINES.

**JOHN AND EDWIN WRIGHT,**

PATENTEES.  
(ESTABLISHED 1770.)  
MANUFACTURERS OF EVERY DESCRIPTION OF IMPROVED

PATENT FLAT AND ROUND WIRE ROPES  
from the very best quality of charcoal iron and steel wire.

PATENT FLAT AND ROUND HEMP ROPES,  
SHIPS' RIGGING, SIGNAL AND FENCING STRAND, LIGHTNING CONDUCTORS, STEAM PLOUGH ROPES (made from Webster and Horsfall's patent steel wire), HEMP, FLAX, ENGINE YARN, COTTON WASTE, TARPAPING, OIL SHEETS, BRATICE CLOTHS, &c.

UNIVERSE WORKS, MILLWALL, POPLAR, LONDON.  
UNIVERSE WORKS, GARRISON STREET, BIRMINGHAM.  
CITY OFFICE, No. 5, LEADENHALL STREET, LONDON, E.C.

**MINES REGULATION ACT.**

**STEMMERS, PRICKERS, CHARGERS, AND SCRAPERS,**

Which have been tried and found to answer the purpose, are

MANUFACTURED BY

**JAMES WHITFIELD,**  
OXFORD STREET, BIRMINGHAM.

**THE MINES REGULATION ACT, 1872.**

**CHARLES WINN AND CO.,**  
WOOD STREET, BIRMINGHAM.

MANUFACTURERS OF  
**MINERS' PRICKERS, STEMMERS, AND THE NEW SCRAPER AND CHARGER COMBINED.**

Of the most approved metal, and various sizes.

PRICES ON APPLICATION.

**BICKFORD, VENNING, AND CO.,**  
MANUFACTURERS OF THE  
**IMPROVED SAFETY WATERPROOF BLASTING CARTRIDGES.**

Specialized adapted to the requirements of the Mines Regulation Act. These cartridges are extensively used in Coal and Metalliferous Mines, Railway Tunnelling, Quarries, and for Submarine Blasting, both at home and abroad. They combine great explosive power with a saving of time, and almost absolute immunity from the danger to the operative incident to the use of loose powder.

Prices, and all other information, may be obtained at the offices,—  
TUCKINGMILL, CAMBORNE, CORNWALL; or at  
ADELPHI BANK CHAMBERS SOUTH JOHN STREET, LIVERPOOL.

**THE TAVISTOCK FOUNDRY, IRONWORKS, AND HAMMER MILLS,**

ESTABLISHED MORE THAN HALF A CENTURY,

have been purchased by  
**NICHOLLS, MATHEWS, AND CO.,**  
Who are in a position to MANUFACTURE ALL KINDS OF ENGINEERING and FOUNDRY WORK, SHOVELS, and MINING TOOLS of every description; and have had a large experience in preparing MACHINERY FOR FOREIGN MINES, As well as selecting mechanics to erect the same

N., M., AND CO. have always a STOCK OF SECOND HAND MATERIALS.

**BOILER EXPLOSIONS PREVENTED, AND CONSIDERABLE SAVING OF FUEL EFFECTED, by the use of the**

**NEW PATENT WATER PURIFIER,**

Which renders the worst water as pure and soft as rain water, and makes it im- possible for incrustation to fix on plates. Price 10s. per gallon.  
One gallon will purify 500 gallons of bad water. It only requires a tank or pond large enough to hold a supply of water for an hour or two before going into boiler. Instructions, with a month's supply, sent on the full understanding that should it not effect a complete cure no money to be charged.

Address,—  
**CALLENDER AND MUNRO,**  
75, GREENDYKE STREET, GLASGOW.

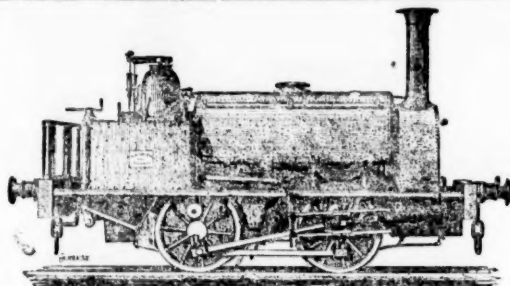
**J. AND F. POOL,**  
WIRE WEAVERS,

MINE SIEVE AND STAMPS' GRATE MANUFACTURERS,  
COPPER BOTTOM PERFORATORS,

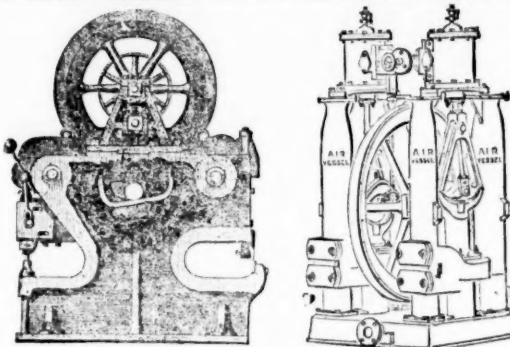
WORKS AT  
**COPPERHOUSE, HAYLE, CORNWALL.**

Just published. Free Edition.

**GUIDE TO HEALTH; or, ADVICE AND INSTRUCTIONS FOR THE CURE OF NERVOUS DEBILITY.**—A New Medical Work on the Treatment of Local Debility, Consumption, Loss of Memory, Physical Depression, Indigestion, and all diseases resulting from loss of nerve power. Illustrated with cases and testimonials. Sent free for two stamps.—Dr. SMITH will, for the benefit of country patients, on receiving a description of their case, send a confidential letter of advice.—Address, Dr. H. SMITH, 8, Burton Crescent, London, W.C.

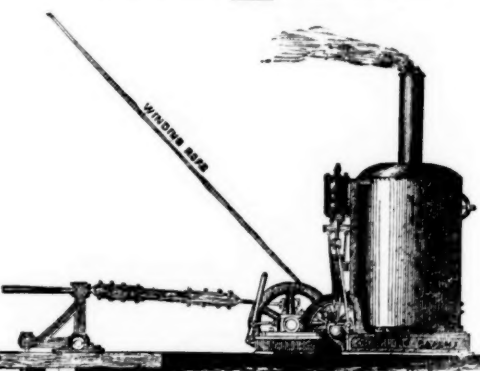


**TANK LOCOMOTIVES,**  
FOR SALE OR HIRE.  
**HENRY HUGHES AND CO.**  
LUGHBOROUGH.



**JOHN CAMERON,**  
MAKER OF  
STEAM PUMPS, PORTABLE ENGINES, PLATE BENDING ROLLERS, BAR AND ANGLE IRON SHEARS, PUNCHING AND SHEARING MACHINES, PATENTEE OF THE DOUBLE CAM LEVER PUNCHING MACHINE, BAR SHEARS, AND RAIL PUNCHING MACHINES,  
**EGERTON STREET IRON WORKS,**  
HULME, MANCHESTER.

Prize Medal—International Exhibition, 1862.



**CHAPLIN'S PATENT PORTABLE STEAM ENGINES**

FOR PUMPING AND WINDING.  
SPECIALLY ADAPTED FOR PITS, QUARRIES, &c.  
SIMPLE AND STRONG; require NO FOUNDATION or CHIMNEY STACK, and are EASILY ERECTED OR REMOVED.

Sizes, from 2 to 30 horse power.  
Stationary Engines, 1 to 30 horse power, with or without gearing.  
Steam Cranes, 30 cwt. to 20 tons, for wharf or Hoisting Engines, 2 to 30 horse power, with or without jib.  
Contractors' Locomotives, 6 to 27 horse power.  
Traction Engines, 6 to 27 horse power.  
Ships' Engines, for winding, coaling, and distilling, passed by H.M. Government for half water.  
Steam Winches. Engines and Boilers for light screw and paddle steamers.

**WIMSHURST, HOLLOCK, & CO.,**  
ENGINEERS,  
WORKS: REGENT'S PLACE, COMMERCIAL ROAD EAST, LONDON, E.  
(At Regent's Canal, near Stepney Station.)  
City Office: 117, Cannon-street, London, E.C.

**THOMAS TURTON AND SONS,**



MANUFACTURERS OF  
CAST STEEL for PUNCHES, TAPS, and DIE TURNING TOOLS, CHISELS, &c.  
CAST STEEL PISTON RODS, CRANK PINS, CONNECTING RODS, STRAIGHT AND CRANK AXLES, SHAFTS and FORGINGS OF EVERY DESCRIPTION.  
DOUBLE SHEAR STEEL. FIVE MARKED  
BLISTER STEEL. T. T. P. O. N.  
SPRING STEEL. EDGE TOOLS MARKED  
GERMAN STEEL. WM. GRFAVES & SON  
Locomotive Engine, Railway Carriage and Wagon Springs and Buffers.

**SHEAF WORKS AND SPRING WORKS, SHEFFIELD.**  
LONDON WAREHOUSE, 35, QUEEN STREET, CANNON STREET, CITY, E.C.  
Where the largest stock of steel, files, tools, &c., may be selected from.

Ready for the press, and will be sent free of postage on remittance of £1 by Post Office Order.

**MECHANICAL METALLURGY,**

OR THE  
SEPARATION OF METALS AND METALLIC ORES FROM ROCK BY MACHINERY.

A complete treatise on the Dressing of Metallic Ores, combining all the latest improvements introduced in Europe and the United States, with illustrations.

By FREDERIC CAZIN.

Mining Engineer and Superintendent of the Rose-Claire Lead and Spar Works, at Rose-Claire, Hardin Co., Ill., U.S.

In the United States and Territories of North America mining and smelting operations and base metals have been developed to a large extent, while the trade forming the connecting link between the two has been neglected.

How important Mechanical Metallurgy is for the ultimate success of nearly every mining district can only be appreciated by those that had an opportunity to observe the results attained by mineral dressing establishments.

In Missouri the Author put up an extensive establishment, where 1 per cent. of galena in the rock pays for all the expense of separation, and the same result can be attained nearly everywhere, where lead bearing rock occurs. Equally good results obtainable with gold and silver ores.

The work contains all the principal practical instructions needed for putting up an arrangement for successfully dressing mineral rock of all kinds, and for separating the metals or metallic ores so thoroughly from the waste that not 1 in 10,000 weight needs to be lost. Sludge mineral may be separated so thoroughly and successfully that the finest particles scarcely recognisable with the bare eye may be saved.

Of all important apparatuses wood-cuts are inserted and measures given.

London: MINING JOURNAL OFFICE, 26, Fleet-street, E.C.

**GUIDE TO INVESTMENTS.**

Published monthly. Post free.

**SPARGO'S "GUIDE TO INVESTMENTS"**

affords information (ample and correct) of all the best paying investments. Capitalists and men of business should consult the "Guide" for reliable and valuable intelligence.

THOMAS SPARGO,  
Gresham House, Old Broad-street, E.C.  
Established Twenty-six Years, Fifteen at present address.

**McNIEL, MULLER, AND CO.**

39, MARKET STREET,

MANCHESTER.

SOLE AGENTS FOR  
"S. B. HEMATITE,"  
"S. B. YORKSHIRE,"  
"CLAY LANE,"  
"CLAY CROSS,"

AGENTS FOR JACKSON, GILL, AND CO., IMPERIAL  
IRONWORKS, NEAR MIDDLESBOROUGH;  
DARLINGTON WAGON COMPANY, DARLINGTON

SCOTCH, HEMATITE, STAFFORDSHIRE, DERBYSHIRE, PUMPS, DEAN, COLD BLAST AND REFINED PIG IRON, PUBLISHED BAR IRON, STEEL, SPELTER, TIN, COPPER, LEAD, SHEETS, BOLTS, NUTS, SPIKES, MANUFACTURED IRON, &c., &c.

**SOMERVELL BROTHERS**

NETHERFIELD, KENDAL.

MANUFACTURERS OF  
LEATHER BANDS, HOSE PIPES, FIRE BUCKETS, HAND LEATHERS, BLUE BENDS, AND THE KENDAL ENGINE BENDS.  
And every description of LEATHER for ENGINEERS' COLLIERY PURPOSES.

**JOHN BOURNE AND CO.**

ENGINEERS, SHIPBUILDERS, AND CONTINENTAL  
66, MARK LANE, LONDON.

**COMPOUND WINDING ENGINES,**

Inexpensive, easily handled, and very economical in fuel.  
**COMPOUND ENGINES FOR ROLLING IRON.**  
Without gearing and fly-wheel, and wholly exempt from breakage.  
Pumping Engines, Blowing Engines, Steam Boilers, Hydraulic Machines, Washing Machines, Shearing Machines, Cranes, and all kinds of machinery required in Collieries and Ironworks.

**MINERS' PRICKERS AND STEMMERS**

OF  
**MUNTZ'S METAL.**

ACCORDING TO THE NEW MINES REGULATION

BEST KNOWN MATERIAL.

**MUNTZ'S METAL COMPANY (LIMITED)**

FRENCH WALLS,  
NEAR BIRMINGHAM.

**SOLID DRAWN BRASS BOILER TUBES**

FOR LOCOMOTIVE AND MARINE BOILERS.

EITHER  
**MUNTZ'S OR GREEN'S PROCESS**

**MUNTZ'S METAL COMPANY (LIMITED)**

FRENCH WALLS,  
NEAR BIRMINGHAM.

**WALKER'S PATENT CENTRAL-LIFT STAMPS**

This is the MOST IMPORTANT INVENTION for

CRUSHING ORES AT A SMALL COST.

For all new mines they are invaluable.

Can be SEEN AT WORK every day at 12, JAMES STREET, OLD LONDON, E.C., near CITY ROAD.

**THE LIVERPOOL COLLEGE OF CHEMISTRY**

96, DUKE STREET, LIVERPOOL.  
Specially devoted to the Study of CHEMISTRY, TECHNOLOGY, and MINING.  
Laboratories open throughout the year.

**MARTIN MURPHY, F.C.S., &c., Principal**  
(Successor to the late Dr. SHERIDAN MURPHY.)

A Special Laboratory is devoted to Commercial Analyses of every kind, and to Mineral Assays.  
Manufacturers' and Smelters' Analyses and Assays undertaken on commission.  
Patentees and Inventors advised and assisted; Works and Mines supervised; erection of Manufacturers' Plant supervised, &c.

TERMS AND FEES VERY MODERATE.  
Further particulars and full prospectus on application to—  
The Principal, MARTIN MURPHY, F.C.S.

**BRITISH MINING.**—Capitalists should possess reliable information for correct intelligence before purchasing shares. Mines often pay more when pioneer points are valueless, and reserves of ores rapidly exhausted; others are neglected when discoveries are being made, reserves accumulated, the future fraught with expensive promise. The past is gone, the present through lack of accurate information, deceptive, hence future yields and working should be earnestly studied and understood by the investor. prices, statistical data, and general information gratuitously upon application.

**RICHARD TREDENNICK,**  
Consulting Mining Engineer and Dealer in Stocks and Shares,  
32, Fleet-street, London.

**THIRD EDITION.**  
Demy 8vo., 228 pp., cloth lettered, price 5s.

**THE COAL MINES REGULATION ACT, 1872,**

with a DIGEST and a REPRINT of the STATUTE, and EXPLANATORY NOTES; also an APPENDIX of the AUTHORIZED FORMS; and an INDEX.

By MASKELL W. PEACE.

Solicitor to the Mining Association of Great Britain, and to the South Wales and Chesire Coal Association.

London: W. M. HUTCHINGS, Colliery Guardian Office, 8, Bowdoin-street.

**THE IRON AND COAL TRADES' REVIEW**

ROYAL EXCHANGE, MIDDLESBOROUGH.

The IRON AND COAL TRADES' REVIEW is extensively circulated amongst Producers, Manufacturers, and Consumers, Coalowners, &c., in all the coal districts. It is, therefore, one of the leading organs for advertising and description of Iron Manufactures, Machinery, New Inventions, and all matters relating to the Iron, Coal, Hardware, Engineering, and Metal Trades in general.

Office of the Review: Middlesborough-on-Tees (Royal Exchange), 11 and 12, Red Lion-court, Fleet-street; Newcastle-on-Tyne (No. 40, Grey-street).

**LOSS OF LIFE OR LIMB**

WITH THE CONSEQUENT  
LOSS OF TIME AND MONEY,  
CAUSED BY  
ACCIDENTS OF ALL KINDS,

PROVIDED FOR BY A POLICY OF THE  
**RAILWAY PASSENGERS' ASSURANCE COMPANY**

An annual payment of £3 to £5 insures £1000 at death, or an equivalent rate of £5 per week for injury.

£225,000 have been paid as compensation—  
rate of £5 per week for injury.

One out of every twelve Annual Policy Holders becoming a claimant and receiving compensation.

For particulars, apply to the Clerks at the Railway Stations, to the Local Agents, or at the Offices,—  
64, CORNHILL, and 10, REGENT STREET, LONDON.  
WILLIAM J. TAYLOR, Secretary.

**THE NEWCASTLE DAILY CHRONICLE**  
(ESTABLISHED 1844.)  
THE DAILY CHRONICLE AND NORTHERN COUNTIES ADVERTISER  
Office, Westgate-road, Newcastle-upon-Tyne; 50, Howard-street, Shields; 198, High-street, Sunderland.



APRIL 26, 1873.]

# ROYAL AGRICULTURAL SOCIETY OF ENGLAND. CARDIFF MEETING, 1872.

## CLAYTON AND SHUTTLEWORTH

Have much pleasure in announcing the following List of Prizes awarded them at this Show:—

"For the Best Portable Steam Engine" .....	THE FIRST PRIZE OF £40.
"For the Best Combined Portable Thrashing Machine" .....	THE FIRST PRIZE OF £40.
"For the Best Combined Portable Thrashing and Finishing Machine" .....	HIGH COMMENDATION.
"For the Best Straw and Hay Elevator (Stacking Machine)" .....	THE FIRST PRIZE OF £10.
"For the Best Straw Elevator" .....	THE PRIZE OF £5.
"For Patent Self-Feeding Apparatus for Thrashing Machines" .....	SILVER MEDAL.

CLAYTON AND SHUTTLEWORTH have received FIRST PRIZES AT EVERY TRIAL OF THE ROYAL AGRICULTURAL SOCIETY at which they have competed since 1849; and on three occasions in succession—namely, at Bury St. Edmunds in 1867, at Cardiff in 1870, and at Cardiff, as above, they have been awarded all the First Prizes offered for Steam Engines.

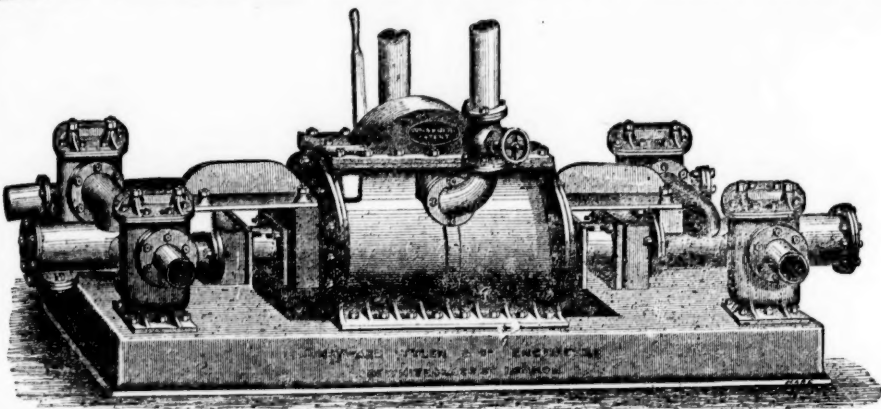
MOSCOW GREAT EXHIBITION, 1872, TWO GOLD MEDALS, viz.:—  
PORTABLE STEAM ENGINE.—"For Simplicity of Construction."—GRAND GOLD MEDAL.  
FOR COMBINED THRASHING MACHINES.—GRAND GOLD MEDAL.

Revised Catalogues free, by post, on application to—

CLAYTON AND SHUTTLEWORTH, LINCOLN.

78, LOMBARD STREET, LONDON, AND 35 AND 37, TARLETON STREET, LIVERPOOL.

## HAYWARD TYLER AND CO.'S PATENT STEAM PUMPING MACHINERY.



Best a year and a-half since a direct-acting pumping-engine was erected at the Trimdon Grange Colliery by Messrs. Hayward Tyler and Co., of London. The diameter of the steam-cylinder of this engine is 40 in., that of the rams 10 in., the pump-plungers having a 4-ft. stroke. The whole of the combined apparatus is mounted on a solid bed-plate, and the pumps are so arranged that they can be drawn off endways, if required, a planed groove being formed in the bed plate to receive the pumps. A pumping-engine of this description requires no very accurate adjustment of level, as it is self-contained, and all the strains are direct from the cylinder to the pumps, which at their underside are attached to the bed-plate, and are supported by a strong stay above. The engine at the Trimdon Grange is placed in a headway cut for its reception, at a depth of 400 ft. from the surface, and a short distance from the main shaft. The pump takes its water from a pump, into which the level drains. The pumping-engine continues to do its work in a satisfactory manner, and at a recent trial made by Mr. R. Forster, it was found that the pump was throwing to bank, a distance of 400 ft. above itself, 245½ gallons of water per minute, the pump running at 10 strokes, and giving 95 per cent. of its theoretical duty."—See *Engineering*, 3rd Jan., 1873.

Full particulars, references, testimonials, &c., post free, on application to—

HAYWARD TYLER AND CO.,

4 AND 85, UPPER WHITECROSS STREET, LONDON, E.C.

## J. W. STEAD,

(Late of the Firm of HODGSON and STEAD),

MANUFACTURER OF WEIGHING MACHINES, WEIGHBRIDGES,  
AND ALL DESCRIPTIONS OF WEIGHING PLANT FOR ALL NATIONS.

OFFICES AND WORKS:—

GLOBE FOUNDRY, PENDLETON, MANCHESTER.

SHOW ROOMS:—11, NEW BAILEY STREET, opposite the Railway Station, SALFORD.

ENTER WEIGHING MACHINES.

WAGON, AND RAILWAY TRUCK WEIGHBRIDGES, with

without the "Improved Relieving Apparatus."

CONTAINED WEIGHBRIDGES, requiring no masonry or

work.

INDICATING and other Weighing Machines for Colliery

purposes.

Globe Foundry is One Minute's Walk from the Pendleton Bus Office, and Four Minutes' from Pendleton Railway Station.

THE "CALCULATOR," specially for Contractors, Storekeepers, Bolt-makers, &c., indicating the weight by count or the count by weight. (No loose weights required.)

STEEL YARDS, &c.

WEIGHING PLANT, of any power or dimensions, to the standard

of all nations.

CONTRACTOR TO RAILWAY AND OTHER COMPANIES, FOR

MAINTAINING WEIGHING MACHINERY.

## ARTESIAN BORINGS,

WATER SUPPLY to TOWNS, LAND IRRIGATION, and MINERAL EXPLORATIONS may be executed of any diameter, from 6 in. to 36 in., and to any depth to 2000 ft., by the

PATENT STEAM EARTH-BORING MACHINE OF  
MATHER AND PLATT,

MAKERS OF LARGE PUMPS AND PUMPING ENGINES,

Improved Valves and Taps for Water, Steam, Gas, &c. Pistons and  
Air-pump Buckets fitted with Patent Elastic Metallic Packing,

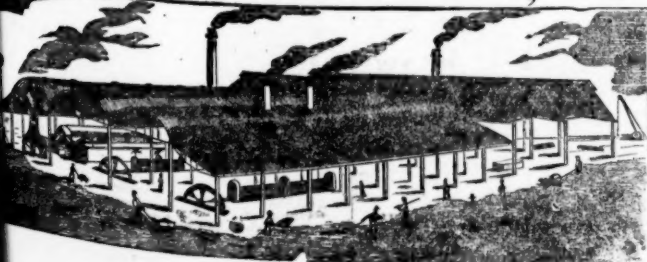
Of which 6967 have been made to March, 1873.

ENGINEERS and MACHINE MAKERS to CALICO PRINTERS, BLEACHERS, DYERS, and FINISHERS.

SALFORD IRONWORKS, MANCHESTER.

PRICES AND PARTICULARS ON APPLICATION.

## ISAAC DIXON, HATTON GARDEN, LIVERPOOL,



MANUFACTURER OF  
CORRUGATED CURVED SELF-  
SUPPORTING IRON ROOFS,

Galvanised or painted (the most economical form of roof up to 45 ft. span); also

WROUGHT-IRON FRAMED ROOFS,

Of every description, suitable for wide spans.

These roofs are specially adapted for Forges, Rolling Mills, and general Roofing for Ironworks, Shipbuilding

Yards, Mines, Collieries, Railways, &c.

For Roofs with Timber Framing, I. D.'s Galvanised or Painted Corrugated Slates or Sheets form a durable and cheap covering, costing only about the same, when fixed complete, as Felt and Boards.

Iron Cottages, Stores, Offices, and Buildings of any size or design. Wrought-iron Tanks.

DRAWINGS AND ESTIMATES ON APPLICATION.



PARIS.



ORDER OF THE CROWN OF PRUSSIA.



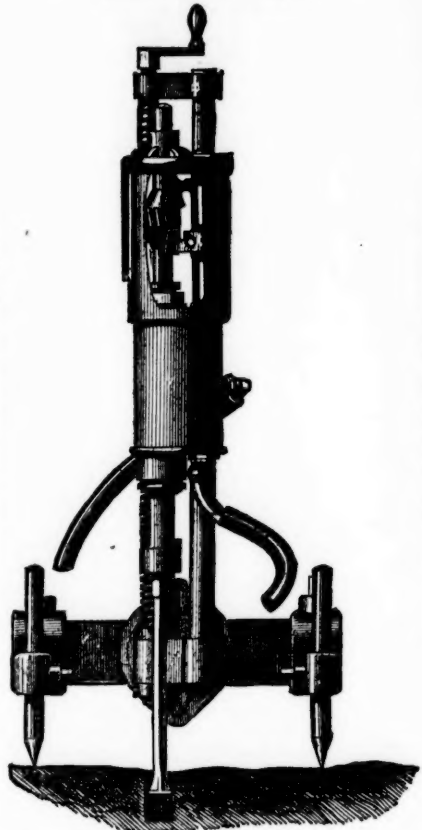
FALMOUTH.

## McKEAN'S ROCK DRILL,

FOR MINES, TUNNELS, QUARRIES, AND SUBMARINE WORK  
500 TO 1000 STROKES PER MINUTE

(counted by mechanism).

PENETRATES GRANITE 6 TO 12 INCHES PER MINUTE.  
MACHINES WARRANTED.



One of McKEAN'S ROCK DRILLS may be seen working in Aberdeen granite from One to Four o'clock daily at 42, Borough-road, S.E., London.

For full description, &c., see *ENGINEERING* of July 23, 1872,  
and *MINING JOURNAL* of July 27, 1872.

These machines are manufactured for McKean and Co. by

MESSRS. P. AND W. MACLELLAN, "CLUTHA IRONWORKS,"  
GLASGOW;

MESSRS. VARRALL, ELWELL AND MIDDLETON, PARIS;  
AND E. REMINGTON AND SONS, NEW YORK.

SMALL PORTABLE BOILERS, or AIR COMPRESSORS, furnished, if required; the latter with GIFFARD'S FRICTIONLESS VALVE PISTON.

## McKEAN AND CO.,

ENGINEERS,

42, BOROUGH ROAD, S.E., LONDON,  
AND 5, RUE SCRIBE, PARIS.

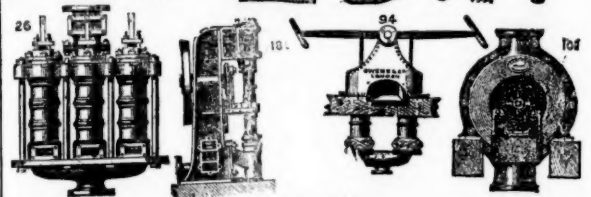
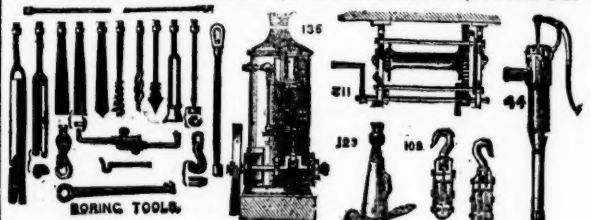
Circulars sent free.

N.B.—McKEAN and Co. are sole agents for M. GIFFARD'S FRICTIONLESS VALVE PISTON, for Pumps, Air Compressors, &c., giving a larger percentage of yield than any other system.

## S. OWENS AND CO.,

Hydraulic and General Engineers,

WHITEFRIARS STREET, FLEET STREET, LONDON



MANUFACTURERS OF

BORING TOOLS, for testing ground for Minerals. Bridge foundations, Artesian Wells, &c., to any depth.  
No. 26.—Treble Barrel and other Deep Well Pumps.  
No. 136.—Vertical and other Portable Steam Engines.  
No. 185.—Horizontal and Vertical Steam Pumping Engines.  
No. 112.—Single and Double-purchase Crab Winches.  
No. 108.—Pulley Blocks of all sizes.  
No. 123.—Bottle and other Lifting Jacks.  
No. 94.—Double-barrel Pumps, for Mine or Quarry use.  
No. 44.—Portable Wrought-iron Pumps, ditto ditto  
No. 102.—Bernay's Patent Centrifugal Pumps, of all sizes.

ALSO EVERY OTHER DESCRIPTION OF  
HYDRAULIC AND GENERAL MACHINERY,  
COMPRISING

TURBINES, WATER WHEELS, WIND ENGINES,  
THE HYDRAULIC RAM, FIRE ENGINES, &c.

Catalogues and Estimates on application.

HIBBERT'S NEW THEORY and PRACTICE OF MEDICINE  
for HUMAN BEINGS; ditto, for Animals; price 1s. each.  
Publishers: SIMPKIN, MARSHALL, and Co., London; JOHN HAYWOOD, Manchester.

HIBBERT'S PATENT ANTISEPTIC MEDICINE and LOTION  
obtained through any chemists, or Mr. HIBBERT, Manchester.



## THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.										NON-DIVIDEND FOREIGN MINES.									
Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.	Total divs.	Per share.	Last paid	Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.	Total divs.	Per share.	Last paid				
1500	Alderley Edge, c, Cheshire*	10 0 0	—	—	11 6 8	0 5 0	Jan. 1873	25000	Aberlathney, c, Llandiloes*	1 0 0	—	—	—	—	—				
20000	Allt-y-Crib, c, Tal-y-bont*	2 0 0	—	—	0 0 0	0 0 0	Feb. 1873	10000	Aberystwith, c, Cardigan	4 0 0	—	—	—	—	—				
10000	Belowda Beacon, c, Roche* (3000 Bsh.)	1 0 0	—	—	0 0 0	0 0 0	1 6. Jan. 1873	18000	Ambrose Lake, c, c*	1 10 0	—	—	—	—	—				
5000	Black Caeant, c, Cardigan* (24 sh.)	3 0 0	—	—	0 0 0	0 0 0	—	50000	Ballycunnisk, c, Schull	2 0 0	—	—	—	—	—				
18000	Bocawell Down, c, St. Just*	3 0 0	—	—	0 0 0	0 0 0	—	10000	Ballycunnisk, c, Schull	2 0 0	—	—	—	—	—				
200	Botalack, c, St. Just*	91 8 0	—	—	619 15 0	5 0 0	Aug. 1871	12000	Bedford Consols, c, Tavistock	1 0 0	—	—	—	—	—				
500	Brodford, c, Cardigan*	100 0 0	—	—	110 0 0	2 0 0	Jan. 1872	12000	Bedford United, c, Tavistock	1 15 0	—	—	—	—	—				
4000	Brookwood, c, Buckfastleigh	1 16 0	—	—	2 8 6	0 0 0	Mar. 1873	20000	Belstone, c, (and 5000 sh. 12s. 6d. pd.)	1 0 0	—	—	—	—	—				
3348	Cargill, c, Newlyn	4 15 11	—	—	4 16 8	0 12 6	Oct. 1872	20000	Bog, c, Shropshire*	2 0 0	—	—	—	—	—				
6400	Cashwell, c, Cumberland*	2 10 0	—	—	1 4 0	0 0 0	Aug. 1872	12000	Bowden Hill, c, St. Agnes	1 15 0	—	—	—	—	—				
7500	Castle-an-Dinas, c, St. Colum*	2 0 0	—	—	0 8 0	0 0 0	Jan. 1873	20000	Bryn Bay, c, Cardigan	2 0 0	—	—	—	—	—				
10000	Carn Brea, c, c, Illogan*	35 0 0	—	—	301 0 0	4 0 0	Dec. 1872	30000	Bryn Bay, c, Cardigan	2 0 0	—	—	—	—	—				
2450	Cook's Kitchen, c, Illogan*	19 14 9	—	—	11 16 0	0 7 6	Jan. 1873	30000	Bryn Bay, c, Cardigan	2 0 0	—	—	—	—	—				
10240	Devon Gr. Consols, c, Tavistock*	0 2 0	—	—	116 10 0	0 12 0	May 1872	30000	Burrow & Butson, c, c, St. Agnes	1 0 0	—	—	—	—	—				
656	Ding Dong, c, Guilva	49 14 6	—	—	7 10 0	0 15 0	Aug. 1870	695	Carzise, c, c, Crown	8 18 4	—	—	—	—	—				
4296	Dolcoath, c, c, Camborne	10 14 10	—	—	101 6 8	1 0 0	Feb. 1873	5584	Carn Camborne, c, c, Camborne	4 18 6	—	—	—	—	—				
10000	East Ballewidden, c, Sancerre*	1 0 0	—	—	0 1 3	0 0 0	Feb. 1873	10000	Castle Gate, c, St. Colum*	1 0 0	—	—	—	—	—				
6144	East Caradon, c, St. Cleer*	2 14 6	—	—	14 19 0	0 2 0	Oct. 1872	10000	Cathedral, c, c, Gwennap*	1 10 0	—	—	—	—	—				
300	East Darren, c, Cardigan	32 0 0	—	—	212 10 0	2 0 0	Mar. 1873	3000	Cefn Brynno, c, c, Gwennap*	4 10 0	—	—	—	—	—				
6400	East Pool, c, c, Illogan*	0 9 9	—	—	13 8 9	0 2 6	Mar. 1873	12000	Cardiganshire Old Bog, c, c*	1 0 0	—	—	—	—	—				
2800	Foxdale, c, c, Illogan*	0 9 9	—	—	80 13 0	0 10 0	Sept. 1872	695	Carzise, c, c, Crown	8 18 4	—	—	—	—	—				
3850	Gawton, c, Tavistock	3 10 6	—	—	0 13 0	0 5 0	May 1872	2451	Crenner & Abraham* (25949 sh. £1)	2 0 0	—	—	—	—	—				
40000	Glasgow Carr, c, (30,000 £1 p. 10,000 15s. p.)	4 0 0	—	—	0 3 10	0 3 0	Jan. 1873	15000	Cwm Bychan, c, c, Montgomery	1 0 0	—	—	—	—	—				
15000	Great Laxey, c, Isle of Man*	4 0 0	—	—	15 11 0	0 10 0	Feb. 1873	30000	Cwm Nant Ddu, c, c, Montgomery	1 0 0	—	—	—	—	—				
5908	Great Wheel Vor, c, c, Helston*	40 0 0	—	—	15 19 6	0 2 6	Jan. 1872	15000	Cwm Nant Ddu, c, c, Montgomery	1 0 0	—	—	—	—	—				
6400	Green Hurth, c, Cumberland*	0 6 0	—	—	0 12 0	0 3 0	Dec. 1872	4000	Cwm Ricket, c, Montgomery	4 5 0	—	—	—	—	—				
10240	Gunnislake (Clitters), c, c	5 2 0	—	—	0 2 0	0 1 0	Nov. 1870	12000	Cwm Vron, c, Llandiloes (some 30s. pd.)	2 10 0	—	—	—	—	—				
1024	Herodfoot, c, near Liskeard*	8 10 0	—	—	62 5 0	0 15 0	Oct. 1872	5000	Deer Park, c, c, Cardigan	60 0 0	—	—	—	—	—				
6000	Hington Downs, c, Calstock	6 4 0	—	—	4 3 0	0 5 0	Dec. 1872	12000	Excelsior, c, c, Stoke Climsland	10 0 6	—	—	—	—	—				
25000	Killaloe, c, Tipton	25 0 0	—	—	0 13 0	0 5 0	May 1872	5000	Exmouth, c, Christow	0 7 6	—	—	—	—	—				
6000	Killiford, c, Chacewater	1 0 0	—	—	0 3 10	0 2 0	Jan. 1873	12000	Fedw, c, Llandiloes*	10 0 0	—	—	—	—	—				
400	Lisburne, c, Cardigan	13 15 0	—	—	556 10 0	1 0 0	Mar. 1873	12000	Florida and Tonkin United* c, c	1 0 0	—	—	—	—	—				
2784	Lovell, c, Wendron	3 0 0	—	—	62 3 8	0 0 0	Feb. 1873	15000	Florida, c, c, Llandiloes*	1 0 0	—	—	—	—	—				
9000	Marke Valley, c, Cardigan*	4 10 6	—	—	7 13 0	0 2 6	July 1872	5100	Florida, c, c, Llandiloes*	1 0 0	—	—	—	—	—				
9000	Minera Mining Co., c, Wrexham*	5 0 0	—	—	62 3 8	0 0 0	Feb. 1873	20000	Fortescue, c, St. Austell*	1 0 0	—	—	—	—	—				
20000	Mining Co. of Ireland, c, c, c*	7 0 0	—	—	0 8 0	0 3 6	July 1872	10000	France, c, St. Austell*	0 17 0	—	—	—	—	—				
6400	New Pembroke, c, c, Par Station	5 0 0	—	—	0 17 0	0 4 0	July 1872	5000	Frank Mills, c, Christow	4 6 0	—	—	—	—	—				
12000	North Hendre, c, Wales	2 10 0	—	—	19 19 6	0 7 6	Jan. 1873	8000	Fransville, c, Mont. (4000 sh. 5s. pd.)	1 0 0	—	—	—	—	—				
20000	North Levant, c, c, St. Just	10 12 0	—	—	10 14 6	0 1 6	June 1871	12000	Furze Hill, c, Tavist. (6000 £1 p. 6000 17s. 6d. p.)	2 10 0	—	—	—	—	—				
5694	Pedn-an-drea, c, Redruth	8 2 0	—	—	0 1 0	0 1 0	Sept. 1872	5000	Gern, c, Whitechurch	2 0 0	—	—	—	—	—				
6000	Penhalls, c, St. Agnes	3 0 0	—	—	0 3 0	0 1 6	Oct. 1872	12500	Gilfach, c, Llandadock	2 0 0	—	—	—	—	—				
6000	Phoenix, c, c, Linkinhorne	4 3 4	—	—	39 19 0	0 4 0	Nov. 1872	30000	Glanafon, c, c, Llandiloes*	3 0 0	—	—	—	—	—				
1772	Pelbro, c, St. Agnes	15 0 0	—	—	1 12 6	0 5 0	Mar. 1873	12000	Glanafon, c, c, Llandiloes*	3 0 0	—	—	—	—	—				
10000	Penryn, c, Gwennap	10 0 0	—	—	1 12 6	0 5 0	Mar. 1873	12000	Glanafon, c, c, Llandiloes*	3 0 0	—	—	—	—	—				
1120	Providence, c, c, Uny Lelan	10 6 7	—	—	104 12 6	0 10 0	Sept. 1872	5000	Glanafon, c, c, Llandiloes*	3 0 0	—	—	—	—	—				
15000	Prince Patrick, c, c, Holywell	1 0 0	—	—	0 1 0	0 1 0	Dec. 1872	5000	Glanafon, c, c, Llandiloes*	3 0 0	—	—	—	—	—				
12000	Roman Gravel, c, Salop*	7 10 0	—	—	19 19 6	0 7 6	Jan. 1873	12000	Glanafon, c, c, Llandiloes*	3 0 0	—	—	—	—	—				
5869	Rosehill Hill and Ransom, c, c	4 0 0	—	—	10 14 6	0 1 6	June 1871	12000	Glanafon, c, c, Llandiloes*	3 0 0	—	—	—	—	—				
10000	Shelton, c, c, St. Austell	1 0 0	—	—	0 1 0	0 1 0	Sept. 1872	5000	Glanafon, c, c, Llandiloes*	3 0 0	—	—	—	—	—				
6000	Shineford Dressing, c, Calstock*	1 0 0	—	—	0 1 0	0 1 0	Sept. 1872	5000	Glanafon, c, c, Llandiloes*	3 0 0	—	—	—	—	—				
512	South Caradon, c, St. Cleer	1 5 0	—	—	702 10 0	4 0 0	Feb. 1873	12000	Glanafon, c, c, Llandiloes*	3 0 0	—	—	—	—	—				
5000	South Corn Brea, c, c, Illogan	1 17 6	—	—	0 10 0	0 2 6	Jan. 1872	12000	Glanafon, c, c, Llandiloes*	3 0 0	—	—	—	—	—				
6000	South Gwennap, c, Cardigan	3 0 0	—	—	0 10 0	0 2 6	Jan. 1872	12000	Glanafon, c, c, Llandiloes*	3 0 0	—	—	—	—	—				
242	Spear Moor, c, St. Just	36 17 9	—	—	17 5 0	0 10 0	June 1871	5000	Glanafon, c, c, Llandiloes*	3 0 0	—	—	—	—	—				
940	St. Ives Consols, c, St. Ives	10 15 0	—	—	0 10 0	0 10 0	May 1869	5000	Glanafon, c, c, Llandiloes*	3 0 0	—	—	—	—	—				
8771	St. Just Amalgamated, c, c	3 10 0	—	—	0 9 0	0 4 0	Nov. 1871	12000	Glanafon, c, c, Llandiloes*	3 0 0									